

# 2025 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the Environment Act 1995 Local Air Quality Management, as amended by the Environment Act 2021

Date: June 2025

Information	Mid Sussex District Council Details
Local Authority Officer	Nicholas Bennett
Department	Environmental Health
Address	Oaklands Road, Haywards Heath, West Sussex RH16 1SS
Telephone	01444 477292
E-mail	pollution@midsussex.gov.uk
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# **Local Responsibilities and Commitment**

This ASR was prepared by the Environmental Health Department of Mid Sussex District Council with the support and agreement of the following officers and departments:

Kevin Chappell – Environmental Health Systems Officer

Adam Dracott – Environmental Protection Team Leader

This ASR has been approved by:

Lucy Corrie – Assistant Director Communities

This ASR has not been signed off by a Director of Public Health but has been sent to them for their attention.

If you have any comments on this ASR please send them to Nick Bennett at:

Mid Sussex District Council, Oaklands, Oaklands Road, Haywards Heath, RH16 1SS

01444 477292

pollution@midsussex.gov.uk

# **Executive Summary: Air Quality in Our Area**

This report details the results of air quality monitoring undertaken in 2024 across Mid Sussex District and is prepared in accordance with the guidance issued by the Department for Environment, Food and Rural Affairs (Defra).

Local Authorities across the United Kingdom are required to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives set by the Government are likely to be achieved. Where exceedances are considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP), setting out the measures it intends to put in place in pursuit of the objectives.

Mid Sussex District Council (MSDC) declared an AQMA at Stonepound Crossroads in Hassocks in 2012. Since then, pollution levels have declined to the degree where we were able to revoke the AQMA in December 2024.

The Council's aim is that by working together with the public and our partners, we can reduce reliance on the car and continue to improve the air that we all breathe.

#### Air Quality in Mid Sussex

Breathing in polluted air affects our health and costs the NHS and our society billions of pounds each year. Air pollution is recognised as a contributing factor in the onset of heart disease and cancer and can cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in hospital admissions and mortality.

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Low-income communities are also disproportionately impacted by poor air quality, exacerbating health and social inequalities.

The area covered by Mid Sussex District Council is primarily countryside, with three major towns. One area of the district has been designated as part of the South Downs National Park, with a significant number of villages, hamlets, ancient churches and woodlands and does not incorporate a significant heavy industrial base. The district also contains part of the High Weald Area of Outstanding Natural Beauty (AONB). Locally, the most significant

contributions to poor air quality come from road transport, the air pollutant currently of most concern being nitrogen dioxide (NO<sub>2</sub>).

The main source of air pollution in the district is road traffic emissions, mostly from major roads. Traffic is responsible for approximately 80% of NO<sub>2</sub> concentrations at the roadside, with diesel vehicles of greatest concern at a local level.

Exposure to these emissions is highest where buildings are located close to these roads, notably the A273 area north and south of Hassocks. Information on the revoked AQMA has been included on the Council's web pages at <u>Air Quality - Mid Sussex District Council</u>.

Previous air quality monitoring and modelling carried out by the Council indicated that despite good air quality within most of the district, the annual mean air quality objective for nitrogen dioxide (NO<sub>2</sub>) was not being met in the Stonepound Crossroads area of Hassocks where the A273 Brighton Road intersects with the B2116 Keymer Road.

Therefore, in March 2012 an Air Quality Management Area (AQMA) was declared at Stonepound Crossroads, Hassocks.

Since the AQMA was declared there has been an overall reduction in measured NO<sub>2</sub>. For the fifth consecutive year, there were no exceedances within the AQMA. On this basis, revocation of the AQMA was agreed with Defra and was completed in December 2024.

Monitoring results for NO<sub>2</sub> across the district in 2024 are very encouraging overall. There remain no exceedances in the district. The majority of monitoring sites are reading lower than they were in 2023, although seven tubes have recorded a slight increase. For five of these the increase is less than 1ug/m<sup>3</sup>, and for the remaining two tubes which have increases of 1.1 and 1.8 ug/m<sup>3</sup>, the absolute levels are low (23.6 and 20.8 ug/m<sup>3</sup>)

It is probable that factors such as new working patterns i.e. more working from home, as well as increasing numbers of electric vehicles and a reduction in older (more polluting) vehicles on the road play a significant role. Some caution should be applied to any long-term conclusions drawn from recent years' data in comparison to previous years given that future working trends are not yet clear, but it is evident that the underlying trend downwards continues.

Due to concerns over measured levels of NO<sub>2</sub> in London Road, East Grinstead, the Council increased our monitoring in this area to get a clearer understanding of local exposure. Additionally, the Council installed a real time monitor close-by in August 2022,

which has now captured data for 2023 and 2024. Data from both the real time monitor and the diffusion tubes show levels are below the objective and are in a downward trend.

The work under Local Air Quality Management (LAQM) is the legal obligation of both district and county councils, as set out in Defra Policy Guidance PG22 paragraph 3.2:

More than 200 local areas are governed by two-tier authorities e.g. a district council and a county council, each of which have powers and functions that are important in tackling air quality. There are obligations on both district and county councils within Part IV of the Environment Act 1995. The Environment Act 2021 ensures that responsibility for solutions to poor air quality is shared across local government....

In practical terms, actions aimed at improving air quality often require the cooperation of various departments and organisations. MSDC Environmental Protection works in conjunction with other stakeholders, such as our Planning department, UK Health Security Agency, West Sussex County Council (WSCC) Highways, neighbouring districts, the Sussex Air Quality Partnership and West Sussex Public Health. The assessment and implementation of the identified traffic management schemes was done in cooperation with WSCC as they are the authority responsible for roads and transport management. An air quality action plan steering group was set up, the work of which contributed largely to the development of Action Plans for the AQMA (now revoked). The Council is consulted by the Environment Agency upon the granting of environmental permits for 'Part A1' industrial processes and liaises with the Agency regarding any issues concerning those permits.

Additionally, Mid Sussex District Council are members of the Sussex Air Quality
Partnership (Sussex-air) which benefits from the co-ordinated monitoring of air pollutants
across the region, and provides airAlert\* services.

\*airAlert is a free service for the residents of Sussex which provides an early warning of poor air quality by text/SMS, voice-mail or email for individuals with asthma or poor respiratory health. This service is also available as a smart-phone app.

Table ES 1 provides a brief explanation of the key pollutants relevant to Local Air Quality Management and the kind of activities they might arise from.

Table ES 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO <sub>2</sub> )	Nitrogen dioxide is a gas which is generally emitted from high- temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO <sub>2</sub> )	Sulphur dioxide (SO <sub>2</sub> ) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Particulate matter is everything in the air that is not a gas.  Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes.  PM <sub>10</sub> refers to particles under 10 micrometres. Fine particulate matter or PM <sub>2.5</sub> are particles under 2.5 micrometres.

### **Actions to Improve Air Quality**

Whilst air quality has improved significantly in recent decades, there are some areas where local action is needed to protect people and the environment from the effects of air pollution. Previous actions have focused on a range of measures designed to limit the exceedance of the NO<sub>2</sub> air quality objective in the AQMA. As this has now been achieved and the AQMA successfully revoked, the focus will revert to a district wide strategy. Defra requires those local authorities with no AQMAs to develop such an Air Quality Strategy. This is currently being drawn up and it is the Council's intention that it be published before the end of Summer 2025.

### **Conclusions and Priorities**

No exceedances for NO<sub>2</sub> were identified during this reporting year and the underlying trend in the district remains downward. As there were no exceedances within the AQMA for 5 consecutive years the revocation process was agreed with Defra and completed in December 2024.

The large Brookleigh development in Burgess Hill (formerly known as the Northern Arc) has been assessed through the planning process and is not expected to have a significant impact upon air quality in the district. The locations of monitoring points in the district will continue to be reviewed on an annual basis.

The Council's priorities for the coming year are:

- Complete and publish the Council's Air Quality Strategy
- Continue to work in partnership with West Sussex Public Health and West Sussex
  County Council to raise awareness of the facts relating to poor air quality, how to
  reduce sources of air pollution, to focus on the co-benefits of active travel to health
  and wellbeing and how to reduce exposure to air pollution during episodes of poor
  air quality.
- The promotion of "green" travel at the Council with incentives for staff to take sustainable methods of travel into work and to promote the cycle-to-work scheme.
   Council staff also have access to electric bikes.
- The Sayers Common to Hassocks Cycle Route has been approved by WSCC and the Hurstpierpoint to Hassocks section is now largely complete with some minor snagging issues to resolve. The Hurstpierpoint to Sayers Common section will progress if suitable funding can be identified.
- MSDC are part of West Sussex County Council's Breathing Better: a partnership approach to improving air quality in West Sussex. The group have produced a county wide plan <u>Air quality - West Sussex County Council</u> and released educational messages in their West Sussex Newsletter.
- WSCC has adopted the West Sussex Electric Vehicle Strategy 2019-2030.
   Connected Kerb is fully funding EV charge point deployment working with WSCC,
   Adur and Worthing, Arun, Crawley, Horsham and Mid Sussex district and borough councils.
- Car sharing continues to be promoted through the Sustainability pages on the MSDC intranet.
- Continuing to educate & encourage members of the public to reduce reliance on car use.
- Continued communication of the issues to the public, professional partners and colleagues.
- SAQP extended the current Sustrans schools project for another year, although funding has now run out and other sources of funding are being explored for 2025/6
- Sustrans have been asked to develop educational content for the SAQP website.
   Due to a lack of funding, this is on hold until SAQP's new data
   management/website management contract is in place.

# How to get Involved

MSDC continue to be members of the Sussex Air Quality Partnership (Sussex Air) which responds to Defra consultations and benefits from the co-ordinated monitoring of air pollutants across the region, including the airAlert service:

#### airAlert

Sussex Air offers to residents of Sussex a free service which provides an early warning of poor air quality by text/SMS, voice-mail or email for individuals with asthma or poor respiratory health.

This service is also available as a smart-phone app.

To receive local air pollution alerts you register at

- airAlert online at <u>www.airalert.info/</u>
- by telephone on 01273 484337
- alternatively download the airAlert app for Apple or Android phones

Additionally, members of the public are able to:

- Find out about bus and coach travel, community transport, and sustainable travel on the WSCC website.
- Find out from their child's school about available travel options for getting to school.
- See the Air Quality section of the council's website for information on Bonfires &
   Smoke, as well as current & previous air quality reports <u>Environment Mid Sussex</u>

   District Council
- Advice and information are available to residents by contacting the Council's Air Quality Officer via our website or through the Sussex Air Partnership.

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# 1 Local Air Quality Management

This report provides an overview of air quality in Mid Sussex during 2024. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in order to achieve and maintain the objectives and the dates by which each measure will be carried out. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Mid Sussex to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England are presented in Table E.1.

# 2 Actions to Improve Air Quality

# 2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority should prepare an Air Quality Action Plan (AQAP) within 18 months. The AQAP should specify how air quality targets will be achieved and maintained and provide dates by which measures will be carried out.

Mid Sussex District Council currently does not have any declared AQMAs. A local Air Quality Strategy is under development to prevent and reduce polluting activities and will be formally adopted by the Council by the end of 2025.

# Table 2.1 - Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
N/A									
N/A									
N/A									

<sup>☑</sup> Mid Sussex District Council confirm the information on UK-Air regarding their AQMA(s) is up to date.

<sup>☑</sup> Mid Sussex District Council confirm that all current AQAPs have been submitted to Defra.

# 2.2 Progress and Impact of Measures to address Air Quality in Mid Sussex

Defra's appraisal of last year's ASR concluded (our response in italics):

- The decision to revoke the AQMA is supported. Details of the revocation should be included in next year's report. The Council are also encouraged to begin works on a local air quality strategy following the revocation of the AQMA. Details of the revocation have been included in this year's report and a local air quality strategy is being drawn up for publication by end of Summer 2025.
- Table 2.1 does not give a level of exceedance in the current year. *Noted. This has been rectified in this year's report.*
- Good discussion has been provided on the use of a more conservative factor, which
  further supports the Council's decision to revoke the AQMA. The Council are
  commended for ensuring that the AQMA is only revoked when appropriate and for
  good discussions regarding QA/QC procedures. *Noted*.
- The Local Authority have based their annualisation on two monitoring sites. This is appropriate and in line with the guidance, but commentary and exploration of using additional monitoring sites would give greater confidence and a more robust annualisation factor for future ASRs. Noted and agreed. However, in this year's report only one tube (MSAQ22) required annualisation and measured levels were low (21.8 ug/m3). Additionally, as the two annualisation factors used were both below one (0.94 and 0.98) it was felt that using further sites was not necessary. In future reports we will ensure that using additional sites will be carefully considered and an explanation given.
- Individual figures have been provided for each monitoring site. These figures are
  clear and well-presented. Highlighting other sites within the area in a different
  format is particularly useful. The Council should continue to include figures of this
  nature in future reports. *Noted*.
- There are a few instances throughout the report where NO<sub>2</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> is not subscripted. *This has been addressed in this year's report.*
- The Council should continue to review their current monitoring network in the next reporting year. Noted and agreed.

Mid Sussex District Council has taken forward a number of direct measures during the current reporting year of 2024 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. Four measures are included within Table 2.2, with the type of measure and the progress Mid Sussex District Council have made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

More detail on these measures can be found in their respective Action Plans. Key completed measures are:

- Review of MOVA traffic light sequencing in AQMA
- "Cut engine, cut pollution" signage on each arm of crossroads in AQMA
- MSDC Travel Plan and Green Travel Scheme review
- Local schools travel plans
- Car share and sustainable travel promotion
- Link to Air Alert service on council website
- Promotion of energy efficiency schemes
- Air quality and emissions mitigation guidance for Sussex incorporated into Council planning policy
- Improved access into Burgess Hill via A2300 which should encourage HGV traffic in particular to avoid the AQMA
- Additional electric vehicle charging infrastructure being installed as part of Connected Kerb
- Further sections of Sayers Common to Hassocks cycle route being completed

Mid Sussex District Council worked to implement these measures in partnership with the following stakeholders during 2024:

- West Sussex County Council
- Crawley Borough Council
- Horsham District Council
- Sussex Air Quality Partnership

The principal challenges and barriers to implementation that Mid Sussex District Council anticipates facing are

- Change in priorities for MSDC and partners due to increased energy costs and the cost of living crisis.
- Funding and resources likely to continue to be significantly reduced as a result of the above.

Mid Sussex District Council confirms that the measures stated above and in Table 2.2 have achieved compliance in the Stonepound Crossroads AQMA, resulting in its formal revocation on 10 December 2024 Air Quality - Mid Sussex District Council

Following successful revocation of our AQMA, Mid Sussex District Council's priorities for the coming year are to finalise a new local air quality strategy and to fulfil our duties as host authority for the Sussex Air Quality Partnership (host since April 2024).

# Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
1	Improved Cycle Routes	Transport Planning and Infrastructure	Cycle network	2014	2024	WSCC and S106	WSCC and MSDC	NO	Partially Funded	£1 million - £10 million	Implementation	Reduced traffic through AQMA	Measured concentration in AQMA	WSCC previously identified cycle route improvements between Sayers Common and Hassocks through the West Sussex Cycling and Walking Strategy 2016-2026. The Hurstpierpoint to Hassocks section is now largely complete with some minor snagging issues to resolve. The Hurstpierpoint to Sayers Common section will only progress if suitable funding is identified.
2	Encourage the use of electric vehicles by providing public charging points	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2015	2026	MSDC and Neighbouring LA's	MSDC, WSCC and LEVI scheme	NO	Partially Funded	£50k - £100k	Implementation	Reduced traffic emissions	Measure usage of local authority controlled electric points	Mid Sussex District Council is a founding partner of the West Sussex Chargepoint Network. Connected Kerb is the service provider. The programme is ongoing, and 13 car park sites in Mid Sussex are now connected. There are several more in the pipeline.  The on-street part of the programme is also now well underway. This is led by WSCC as the highway authority, with sites regularly going out to public

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Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
														consultation. There are 8 onstreet sites active in Mid Sussex currently, with many more planned over the coming year as there is a new government funding scheme available called the LEVI fund exclusively for on-street installations.
3	Improved Bus Provision	Transport Planning and Infrastructure	Bus route improvements	2023	2024	WSCC and S106	WSCC	NO	Funded	£10k - 50k	Completed	Reduced traffic through AQMA	Passenger numbers	Increased frequency of bus route 273 (up to 10 trips per day) and renewed contract for route 33 including future upgrade of fleet
4	Optimized traffic lights to real time pollution data	Traffic Management	UTC, Congestion management, traffic reduction	2021	2024	WSCC and MSDC	WSCC	NO	Funded	< £10k	Implementation	Reduced vehicle emissions	Measured concentration in AQMA	Initial monitoring data available to enable traffic light sequencing trial to commence in 2024

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# 2.3 PM<sub>2.5</sub> – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Government's Air Quality Strategy<sup>1</sup>, local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter (PM<sub>2.5</sub>)). There is clear evidence that PM<sub>2.5</sub> (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

The most recent data from Public Health Outcomes Framework (PHOF) indicator *Fraction* of mortality attributable to particulate air pollution (indicator *D01*) shows that the percentage in Mid Sussex was 4.8%. This compares to a national average of 5.2% and an average of 5.1% in the South East region. This data is for 2023 as more recent data is not yet available.

By way of more local comparison, levels in neighbouring authorities are 4.8% in Horsham District, 5.1% in Crawley Borough, 4.6% in Lewes District and 4.6% in Wealden District.

The Council is taking the following measures to address PM<sub>2.5</sub>:

The Council undertakes air quality emissions reduction measures (set out in Table 2.2) which are aimed at reducing NO<sub>2</sub> but will also contribute to reducing PM<sub>2.5</sub> emissions as these air pollutants share some similar sources, e.g. road traffic emissions and combustion sources. At present Mid Sussex does not undertake any separate reduction measures aimed specifically at tackling PM<sub>2.5</sub> emissions as it is considered that it is more cost effective to continue with the specified measures that will help to reduce both NO<sub>2</sub> and PM<sub>2.5</sub>. However, this approach is regularly reviewed and will be assessed again in 2025 in conjunction with Sussex Air and will be considered in the forthcoming Air Quality Strategy. The approach will be informed by the latest PM<sub>2.5</sub> target values in accordance with the *Environment Act 2021*.

The Council works in partnership with West Sussex Public Health to communicate the impacts of air pollution including PM<sub>2.5</sub>. Additionally, Mid Sussex utilises the "Air quality

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<sup>&</sup>lt;sup>1</sup> Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

and emissions mitigation guidance for Sussex" to encourage lower emission developments with planning and transport authorities to assist in reducing PM<sub>2.5</sub> emissions.

The Council is part of the Sussex Air Quality Partnership, which previously received Defra funding for the *Clean Burn Sussex* project aimed at encouraging cleaner domestic burning. This project incorporated publicising the message that domestic burning should be reduced where possible and that only clean fuels should be burned in domestic stoves and fireplaces as well as data collection and analysis – over 1700 responses were captured to an online survey of burning habits. This data has been analysed and will help to inform further initiatives and policy with regard to domestic burning.

Finally, our real-time air quality monitoring station has been installed in the district (London Road, East Grinstead). It was originally monitoring NO<sub>2</sub>, and PM<sub>10</sub>. However, as we now have sufficient PM<sub>10</sub> data we have upgraded the PM head and have started monitoring PM<sub>2.5</sub> This was undertaken in January 2025.

We have estimated local levels of PM<sub>2.5</sub> using the nationally derived correction factor. The 2024 National Factor for Roadside sites has been used. The recorded annual PM<sub>10</sub> mean concentration at our roadside site in 2024 was 16.3  $\mu$ g/m³. The PM<sub>2.5</sub> concentration at this site can be estimated as follows:

Step 1: Subtract the nationally derived correction factor from the annual mean PM<sub>10</sub> concentration:

16.3 - 6.0 = 10.3

Step 2: Estimated annual mean PM<sub>2.5</sub> = 10.3 μg/m<sup>3</sup>

This estimated level is lower than last year's (11.1µg/m³) and importantly, does not exceed target values. Next year's report will include a measured level for PM<sub>2.5</sub> (rather than estimated).

# 3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance

This section sets out the monitoring undertaken within 2024 by Mid Sussex and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2020 and 2024 to allow monitoring trends to be identified and discussed.

# 3.1 Summary of Monitoring Undertaken

# 3.1.1 Automatic Monitoring Site

Mid Sussex undertook automatic (continuous) monitoring at one site during 2024.

Table A.1 in Appendix A shows the details of the automatic monitoring sites.

The <u>Sussex-air :: Promoting better Air Quality in Sussex :: sussex-air.net :: Home</u> page presents automatic monitoring results for Mid Sussex.

A map showing the location of the monitoring site is provided in Appendix D.31. Further details on how the monitor was calibrated and how the data has been adjusted are included in Appendix C.

### 3.1.2 Non-Automatic Monitoring Sites

Mid Sussex undertook non- automatic (i.e. passive) monitoring of NO<sub>2</sub> at 35 sites during 2024.

Table A.2 in Appendix A presents the details of the non-automatic sites.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. annualisation and/or distance correction), are included in Appendix C.

### 3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias, annualisation (where the annual mean data capture is below 75% and greater

than 25%), and distance correction. Further details on adjustments are provided in Appendix C.

# 3.2.1 Nitrogen Dioxide (NO<sub>2</sub>)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO<sub>2</sub> annual mean concentrations for the past five years with the air quality objective of 40μg/m<sup>3</sup>. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2024 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values only where relevant.

Site locations are reviewed annually to allow site rotation to ensure that new locations can be added as appropriate. This allows for new development, new roads and local knowledge to be accounted for so that monitoring can be flexible and adapt to changes to local circumstances.

Following a review of monitoring sites in November 2023, three sites which were no longer needed were retired (Keymer Road, Hassocks, due to regular theft, London Road, Burgess Hill which became unviable and White Lion Close, East Grinstead, as we now have our AQ station and triplicate tubes in the same locality) and two new sites chosen (both in Ansty as it is an area of interest). Table A.5 in Appendix A compares the ratified continuous monitored NO<sub>2</sub> hourly mean concentrations for the past five years with the air quality objective of 200µg/m³, not to be exceeded more than 18 times per year.

The 2024 data showed no exceedances of the air quality objectives and measured levels broadly showed a continuation of the previous long-term downward trend. The maximum annual mean concentration for NO<sub>2</sub> within the AQMA was 26.2 µg/m³ compared to a maximum of 28.0 µg/m³ in 2023. It should be noted that while the majority of tubes in the district showed a decrease compared to last year's data, seven tubes located in the East Grinstead and Hassocks areas did show an increase compared to last year's results. Out of these, the highest measured level was 30.1 µg/m³ (an increase of 0.3 µg/m³) and the greatest increase was 1.8 µg/m³ (measured level of 20.8 µg/m³). The most likely reason for these increases is the natural variation that is typical for traffic related NO<sub>2</sub> levels. The

increases are not currently considered to be significant enough to change the established long-term downward trend.

### **Revocation of the Stonepound Crossroads AQMA**

As all the monitoring sites in and around the AQMA at Stonepound Crossroads, Hassocks, had shown compliance for 5 consecutive years, revocation of the AQMA was agreed with Defra and has now been completed.

In considering this revocation, reference was made to Defra's TG22 Technical Guidance document. Section 3.53 advises that *in most cases the decision to amend or revoke an AQMA should only be taken following a detailed study*. It goes on to say though, in section 3.55, that *in some instances if compelling evidence exists, detailed modelling to support the decision to amend/revoke an AQMA may not be necessary and an AQMA may be amended or revoked following a screening assessment or on the basis of robust monitoring evidence.* 

This was discussed with the LAQM Support Helpdesk as we considered that our monitoring evidence is robust. The reasons for this were as follows:

Absolute levels - In 2019, the highest reading was 36.3 ug/m³, but since then the measured levels of NO<sub>2</sub> have all been below 32 ug/m³

Long-term trend – the measured levels within the AQMA have trended consistently downwards over the last five years, notwithstanding the effects of the Covid lockdowns.

The local area – the AQMA was very small, encompassing a crossroad at the edge of a large village. Due to the local topography and the traffic queuing at the four-way traffic lights, the area of exceedance was confined to just one building. Monitoring has consistently shown that no other facades or nearby sites are problematic.

Extensive monitoring – There were eleven diffusion tubes in the immediate area, six of which were within the AQMA, including a triplicate site. We are confident that the monitoring results are both robust and consistent.

Use of "worst case" bias correction – In order to ensure a cautious approach, the national bias correction factor was applied to the diffusion tube data, rather than the more favourable (ie lower) local factor based on our real-time monitor.

Therefore, in accordance with the guidance in TG22 Section 3.57, *The revocation of an AQMA should be considered following three consecutive years of compliance with the relevant objective as evidenced through monitoring. Where NO<sub>2</sub> monitoring is completed* 

using diffusion tubes, to account for the inherent uncertainty associated with the monitoring method, it is recommended that revocation of an AQMA should be considered following three consecutive years of annual mean NO<sub>2</sub> concentrations being lower than 36µg/m³ (i.e. within 10% of the annual mean NO<sub>2</sub> objective). There should not be any declared AQMAs for which compliance with the relevant objective has been achieved for a consecutive five-year period, we were satisfied that the criteria were met and following agreement from Defra the revocation process was initiated.

This comprised notification of the AQAP Steering Group of our intention to revoke, formalisation of a Revocation Order in accordance with the Environment Act 1995, Part VI Section83(2)(b), notification to all relevant parties/organisations, and finally publication of the Order on the Mid Sussex District Council website <u>Air Quality - Mid Sussex District</u> Council.

### 3.2.2 Particulate Matter (PM<sub>10</sub>)

We have one continuous roadside monitor for  $PM_{10}$ , located in London Road, East Grinstead (grid ref 539090, 138412). The annual mean for  $PM_{10}$  for 2024 was measured as 16.3  $\mu g/m^3$ 

As this is significantly below the air quality objective of 40  $\mu$ g/m³ and continues a three year downward trend, we have decided to cease monitoring PM<sub>10</sub> and have now replaced the monitoring head so that from January 2025, we shall be monitoring PM<sub>2.5</sub> instead of PM<sub>10</sub>.

Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored  $PM_{10}$  annual mean concentrations for the past three years with the air quality objective of  $40\mu g/m^3$ .

Table A.7 in Appendix A compares the ratified continuous monitored PM<sub>10</sub> daily mean concentrations for the past three years with the air quality objective of 50μg/m³, not to be exceeded more than 35 times per year.

### 3.2.3 Particulate Matter (PM<sub>2.5</sub>)

We did not monitor for PM<sub>2.5</sub> during 2024. In accordance with TG22 guidance, we have estimated PM<sub>2.5</sub> levels using the nationally derived correction factor. The 2024 National Factor for Roadside sites has been used. The recorded annual PM<sub>10</sub> mean concentration

at our roadside site in 2024 was 16.3  $\mu g/m^3$ . The PM<sub>2.5</sub> concentration at this site can be estimated as follows:

Step 1: Subtract the annual mean PM<sub>10</sub> concentration by the nationally derived correction factor:

$$16.3 - 6.0 = 10.3$$

Step 2: Estimated annual mean  $PM_{2.5} = 10.3 \mu g/m^3$ 

This estimated level is lower than last year's (11.1µg/m³) and importantly, does not exceed target values. Next year's report will include a measured level for PM<sub>2.5</sub> (rather than estimated).

# **Appendix A: Monitoring Results**

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA? <sup>(1)</sup>	Monitoring Technique	Distance to Relevant Exposure (m)	Distance to kerb of nearest road (m)	Inlet Height (m)
MSAQ43	London Road East Grinstead	Roadside	539090	138412	NO <sub>2</sub> , PM <sub>10</sub>	No	N/A	Chemiluminescent, TEOM	10.0	1.0	1.7

Table A.2 – Details of Non-Automatic Monitoring Sites

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) <sup>(1)</sup>	Distance to kerb of nearest road (m) <sup>(2)</sup>	Tube Co- located with a Continuous Analyser?	Tube Height (m)
MSAQ1	South Road Haywards Heath	Roadside	533342	123587	NO <sub>2</sub>	No	0.0	2.5	N	1.6
MSAQ3	Southwick House London Road East Grinstead	Kerbside	538690	138759	NO <sub>2</sub>	No	18.0	0.5	N	2.2
MSAQ5	Bus Stop Lewes Road East Grinstead	Suburban	541245	136996	NO <sub>2</sub>	No	16.0	1.5	N	2.3
MSAQ9	Water Tower Colwood Lane Warninglid	Rural	525664	125035	NO <sub>2</sub>	No	40.0	35.0	N	2.1
MSAQ10	Traffic Light Keymer Road Hassocks	Roadside	529911	115489	NO <sub>2</sub>	Yes	6.7	1.5	N	1.7
MSAQ11a , MSAQ11b , MSAQ11c	Over Court Keymer Road Hassocks	Roadside	529930	115481	NO <sub>2</sub>	Yes	0.0	5.5	N	2.5
MSAQ13	Lamp Post Keymer Road Hassocks	Kerbside	529995	115476	NO <sub>2</sub>	No	19.0	0.9	N	2.3
MSAQ14	Bus Stop London Road Hassocks	Kerbside	529911	115598	NO <sub>2</sub>	No	23.0	1.6	N	2.6
MSAQ15	Traffic Lights sign London Road Hassocks	Kerbside	529930	115600	NO <sub>2</sub>	No	6.5	1.6	N	2.4

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) <sup>(2)</sup>	Tube Co- located with a Continuous Analyser?	Tube Height (m)
MSAQ17	Lamp Post Brighton Road Hassocks	Kerbside	529894	115340	NO <sub>2</sub>	No	10.0	1.3	N	2.2
MSAQ18	Bus Stop Brighton Road Hassocks	Kerbside	529907	115428	NO <sub>2</sub>	No	9.0	2.0	N	2.6
MSAQ19	Lamp Post Hurst Road Hassocks	Roadside	529779	115557	NO <sub>2</sub>	No	13.2	1.3	N	1.9
MSAQ22	Leylands Road Burgess Hill	Roadside	532160	120069	NO <sub>2</sub>	No	3.0	1.5	N	2.0
MSAQ23	Over Court Eastern Façade Keymer Road Hassocks	Roadside	529935	115478	NO <sub>2</sub>	Yes	0.0	5.8	N	2.0
MSAQ24	Over Court Western Façade Keymer Road Hassocks	Roadside	529918	115476	NO <sub>2</sub>	Yes	0.0	7.5	N	1.8
MSAQ25	Erica Way Copthorne	Kerbside	531176	138829	NO <sub>2</sub>	No	0.0	4.0	N	2.0
MSAQ26	High Street Hurstpierpoint	Suburban	528289	116395	NO <sub>2</sub>	No	0.8	2.1	N	2.5
MSAQ27	Telegraph Pole London Road Hickstead	Suburban	526870	120238	NO <sub>2</sub>	No	10.0	3.8	N	2.2
MSAQ28	Lamp Post Rocky Lane Haywards Heath	Suburban	533342	122625	NO <sub>2</sub>	No	11.0	1.3	N	2.3
MSAQ29	184 London Road East Grinstead	Roadside	539040	138452	NO <sub>2</sub>	No	0.7	2.7	N	2.4

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) <sup>(2)</sup>	Tube Co- located with a Continuous Analyser?	Tube Height (m)
MSAQ32	Lamp Post Woodcroft Burgess Hill	Roadside	530791	120295	NO <sub>2</sub>	No	5.5	1.5	N	2.2
MSAQ34	Lamp Post No 12 Queen Elizabeth Avenue Burgess Hill	Roadside	531144	118862	NO <sub>2</sub>	No	5.0	4.4	N	2.4
MSAQ35	New Way Lane Hustpierpoint	Rural	528904	114415	NO <sub>2</sub>	No	20.0	n/a	N	1.8
MSAQ36	Lamp Post adjacent Bridgeway London Road East Grinstead	Roadside	537612	139405	NO <sub>2</sub>	No	10.5	1.5	N	2.3
MSAQ37	Lamp Post adjacent 10 Station Road East Grinstead	Roadside	538932	138472	NO <sub>2</sub>	No	5.1	2.5	N	2.3
MSAQ38	Lamp Post adjacent to 194 London Road East Grinstead	Roadside	539004	138481	NO <sub>2</sub>	No	0.4	2.1	N	4.2
MSAQ40	Telegraph Pole adjacent to Stroudley Drive Burgess Hill	Roadside	532892	118062	NO <sub>2</sub>	No	18.5	1.5	N	2.0
MSAQ41	Prospect House Junction Road Burgess Hill	Roadside	531745	118753	NO <sub>2</sub>	No	0.0	1.6	N	2.3
MSAQ42	20 High Street Ardingly	Roadside	534785	129560	NO <sub>2</sub>	No	0.2	0.7	N	2.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) <sup>(1)</sup>	Distance to kerb of nearest road (m) <sup>(2)</sup>	Tube Co- located with a Continuous Analyser?	Tube Height (m)
MSAQ43a					NO <sub>2</sub>					
, MSAQ43b	London Road East Grinstead	Roadside	539090	138412		No	10.0	1.0	Yes	1.7
MSAQ43c										
MSAQ44	Telegraph Pole High Street Handcross	Roadside	526265	129898	NO <sub>2</sub>	No	0.6	1.7	N	2.2
MSAQ45	Telegraph Pole Cuckfield Road Ansty	Roadside	529162	123346	NO <sub>2</sub>	No	2.0	0.9	N	2.2
MSAQ46	Lamp Post London Road Burgess Hill	Roadside	530806	119776	NO <sub>2</sub>	No	3.4	1.7	N	2.1
MSAQ47	Footpath sign adj The Lizard 49 Cuckfield Road Ansty	Roadside	529157	123317	NO <sub>2</sub>	No	2.6	2.3	N	1.6
MSAQ48	Road sign adj 2 Old Cottage Cuckfield Road Ansty	Roadside	529096	123282	NO <sub>2</sub>	No	12.2	2.3	N	1.8

# Notes:

- (1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).
- (2) N/A if not applicable.

Table A.3 – Annual Mean NO<sub>2</sub> Monitoring Results: Automatic Monitoring (μg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
MSAQ43	539090	138412	Roadside	96.2	95.9	N/A	N/A	24.3	21.1	18.7

- ☑ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.
- ⊠ Reported concentrations are those at the location of the monitoring site (annualised, as required), i.e. prior to any fall-off with distance correction.
- ☑ Where exceedances of the NO₂ annual mean objective occur at locations not representative of relevant exposure, the fall-off with distance concentration has been calculated and reported concentration provided in brackets for 2024.

#### Notes:

The annual mean concentrations are presented as μg/m<sup>3</sup>.

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.4 – Annual Mean NO<sub>2</sub> Monitoring Results: Non-Automatic Monitoring (μg/m³)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
MSAQ1	533342	123587	Roadside	100.0	100.0	12.7	14.8	14.4	12.9	12.3
MSAQ3	538690	138759	Kerbside	100.0	100.0	22.7	23.4	22.8	19.7	18.6
MSAQ5	541245	136996	Suburban	100.0	100.0	20.9	22.5	20.7	17.8	18.2
MSAQ9	525664	125035	Rural	100.0	100.0	6.1	6.1	6.3	5.2	5.0
MSAQ10	529911	115489	Roadside	100.0	100.0	28.4	31.3	30.7	28.0	26.3
MSAQ11a, MSAQ11b, MSAQ11c	529930	115481	Roadside	100.0	100.0	27.6	29.6	30.4	27.3	26.1
MSAQ13	529995	115476	Kerbside	100.0	100.0	26.1	30.0	29.1	27.7	26.2
MSAQ14	529911	115598	Kerbside	90.6	90.6	26.0	26.1	26.9	22.5	23.6
MSAQ15	529930	115600	Kerbside	92.2	92.2	26.0	27.7	27.8	25.4	22.9
MSAQ17	529894	115340	Kerbside	92.5	92.5	20.6	22.0	22.5	18.0	14.0
MSAQ18	529907	115428	Kerbside	90.8	90.8	17.9	21.5	17.4	19.0	20.8

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
MSAQ19	529779	115557	Roadside	100.0	100.0	11.9	13.5	12.4	11.3	10.3
MSAQ22	532160	120069	Roadside	67.1	67.1	20.1	22.2	21.3	20.4	17.6
MSAQ23	529935	115478	Roadside	100.0	100.0	23.4	24.4	25.7	24.2	22.0
MSAQ24	529918	115476	Roadside	92.5	92.5	17.8	19.3	18.8	18.2	18.4
MSAQ25	531176	138829	Kerbside	100.0	100.0	18.4	18.8	20.6	18.2	17.7
MSAQ26	528289	116395	Suburban	100.0	100.0	16.1	16.8	16.8	15.3	14.8
MSAQ27	526870	120238	Suburban	90.6	90.6	13.6	14.7	15.4	13.0	12.0
MSAQ28	533342	122625	Suburban	100.0	100.0	22.2	22.4	24.5	21.4	21.0
MSAQ29	539040	138452	Roadside	91.6	91.6	32.5	33.4	31.6	29.6	27.9
MSAQ32	530791	120295	Roadside	100.0	100.0	11.2	11.4	12.3	10.6	10.1
MSAQ34	531144	118862	Roadside	92.2	92.2	19.0	19.6	18.7	16.9	15.9
MSAQ35	528904	114415	Rural	100.0	100.0	6.6	6.7	6.8	5.8	5.2
MSAQ36	537612	139405	Roadside	100.0	100.0	31.6	32.7	33.5	29.8	30.1

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
MSAQ37	538932	138472	Roadside	90.6	90.6	29.8	31.9	31.0	27.7	28.2
MSAQ38	539004	138481	Roadside	100.0	100.0	20.4	20.6	21.0	17.0	17.7
MSAQ40	532892	118062	Roadside	100.0	100.0	11.5	13.1	12.5	10.4	10.3
MSAQ41	531745	118753	Roadside	100.0	100.0		18.6	18.2	16.2	15.6
MSAQ42	534785	129560	Roadside	100.0	100.0		21.4	20.6	18.6	18.0
MSAQ43a, MSAQ43b, MSAQ43c	539090	138412	Roadside	100.0	100.0			27.4	22.5	22.3
MSAQ44	526265	129898	Roadside	92.5	92.5				20.3	19.1
MSAQ45	529162	123346	Roadside	100.0	100.0				35.0	32.6
MSAQ46	530806	119776	Roadside	100.0	100.0				19.5	18.0
MSAQ47	529157	123317	Roadside	100.0	100.0					24.3
MSAQ48	529096	123282	Roadside	100.0	100.0					13.2

<sup>☑</sup> Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.

<sup>☑</sup> Diffusion tube data has been bias adjusted.

Reported concentrations are those at the location of the monitoring site (bias adjusted and annualised, as required), i.e. prior to any fall-off with distance correction.

### Notes:

The annual mean concentrations are presented as µg/m<sup>3</sup>.

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m³ are shown in **bold**.

NO<sub>2</sub> annual means exceeding  $60\mu g/m^3$ , indicating a potential exceedance of the NO<sub>2</sub> 1-hour mean objective are shown in **bold and underlined**.

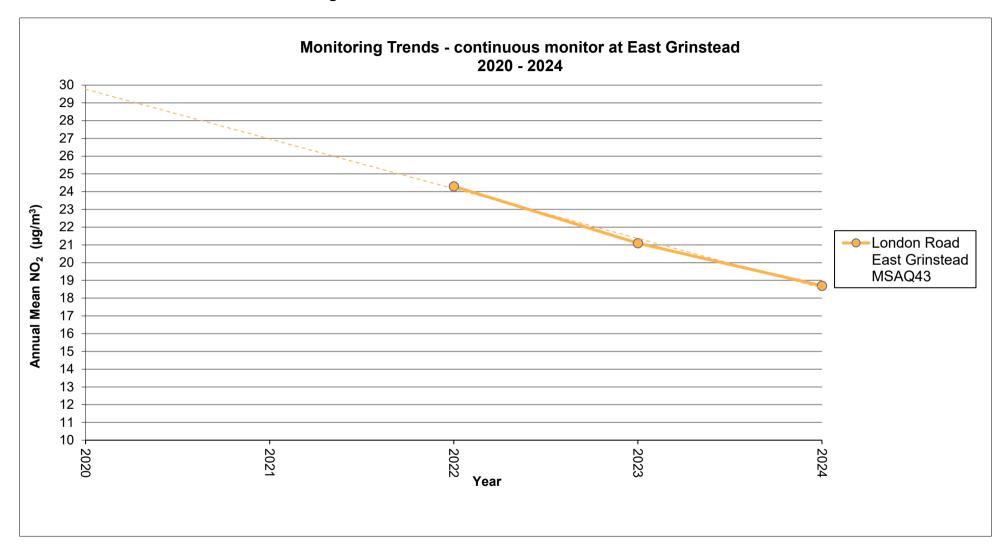
Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.1 – Trends in Annual Mean NO<sub>2</sub> Concentrations

#### East Grinstead automatic monitor - Nitrogen dioxide trends



Since monitoring started in September 2022 the measured annual NO<sub>2</sub> levels have reduced

Diffusion tube - Nitrogen dioxide monitoring trends at East Grinstead sites 2020 - 2024

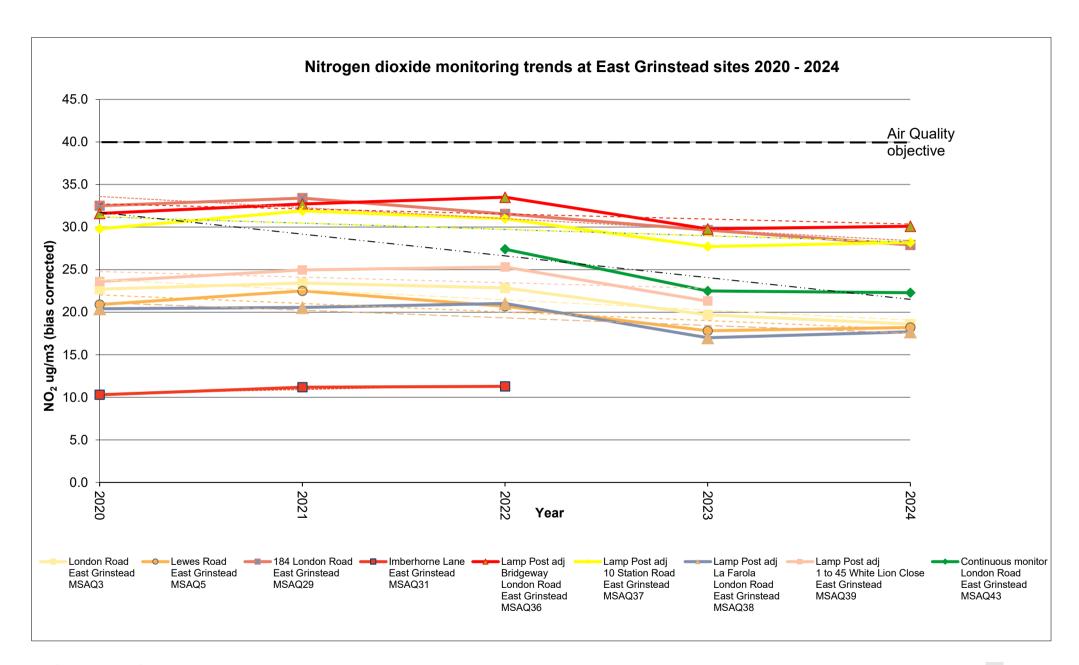
Year	London Road East Grinstead MSAQ3	Lewes Road East Grinstead MSAQ5	184 London Road East Grinstead MSAQ29	Imberhorne Lane East Grinstead MSAQ31	Lamp Post adj Bridgeway London Road East Grinstead MSAQ36	Lamp Post adj 10 Station Road East Grinstead MSAQ37	Lamp Post adj La Farola London Road East Grinstead MSAQ38	Lamp Post adj 1 to 45 White Lion Close East Grinstead MSAQ39	Continuous monitor London Road East Grinstead MSAQ43
2020	22.7	20.9	32.5	10.3	31.6	29.8	20.4	23.6	
2021	23.4	22.5	33.4	11.2	32.7	31.9	20.6	25.0	
2022	22.8	20.7	31.6	11.3	33.5	31.0	21.0	25.3	27.4
2023	19.7	17.8	29.6	Site retired	29.8	27.7	17.0	21.3	22.5
2024	18.6	18.2	27.9		30.1	28.2	17.7	Site retired	22.3

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in bold.

Sites MSAQ3, 5, and 29, have shown a reduction in recorded levels from 2020 to 2024.

Sites MSAQ36, 37, 38 and 39 levels have shown an increase from 2020 to 2022 followed by a reduction in 2023 and have shown a slight increase from 2023 to 2024.

All are currently below the Air Quality Objective of  $40\mu g/m^3$ .

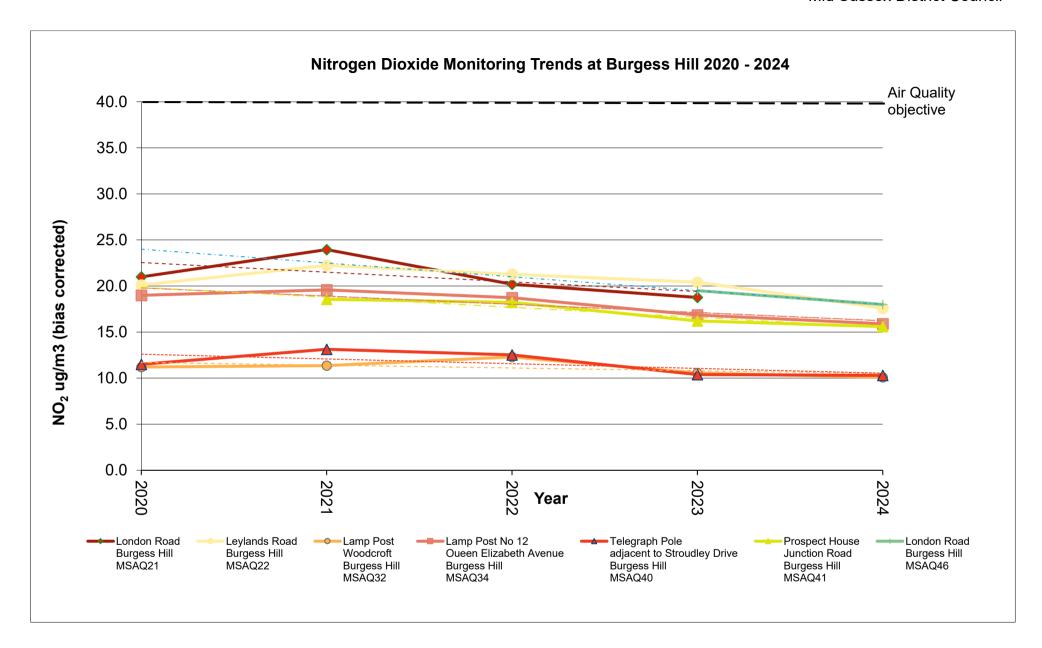


#### Diffusion tube - Nitrogen dioxide monitoring trends at Burgess Hill sites 2020 - 2024

Year	London Road Burgess Hill MSAQ21	London Road Burgess Hill MSAQ46	Leylands Road Burgess Hill MSAQ22	Lamp Post Woodcroft Burgess Hill MSAQ32	Lamp Post No 12 Oueen Elizabeth Avenue Burgess Hill MSAQ34	Telegraph Pole adjacent to Stroudley Drive Burgess Hill MSAQ40	Prospect House Junction Road Burgess Hill MSAQ41
2020	21.0		20.1	11.2	19.0	11.5	
2021	24.0		22.2	11.4	19.6	13.1	18.6
2022	20.2		21.3	12.3	18.7	12.5	18.2
2023	18.8	19.5	20.4	10.6	16.9	10.4	16.2
2024	Site retired	18.0	17.6	10.1	15.9	10.3	15.6

All of the sites have shown a reduction in recorded levels from 2020 to 2024.

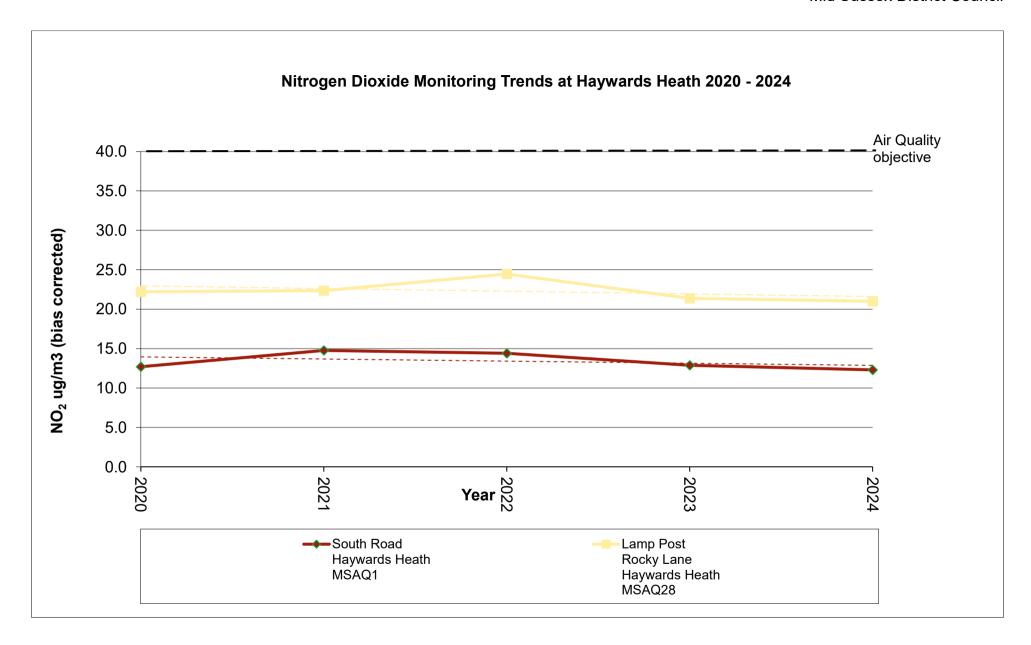
All are currently below the Air Quality Objective of  $40\mu g/m^3$ .



#### Diffusion tube - Nitrogen dioxide monitoring trends at Haywards Heath 2020 - 2024

Year	South Road Haywards Heath MSAQ1	Lamp Post Rocky Lane Haywards Heath MSAQ28
2020	12.7	22.2
2021	14.8	22.4
2022	14.4	24.5
2023	12.9	21.4
2024	12.3	21.0

Both sites have shown a reduction in recorded levels from 2020 to 2024 and are currently below the Air Quality Objective of 40µg/m<sup>3</sup>.



#### Diffusion tube - Nitrogen dioxide monitoring trends at 6 Villages and 2 Rural Background Sites

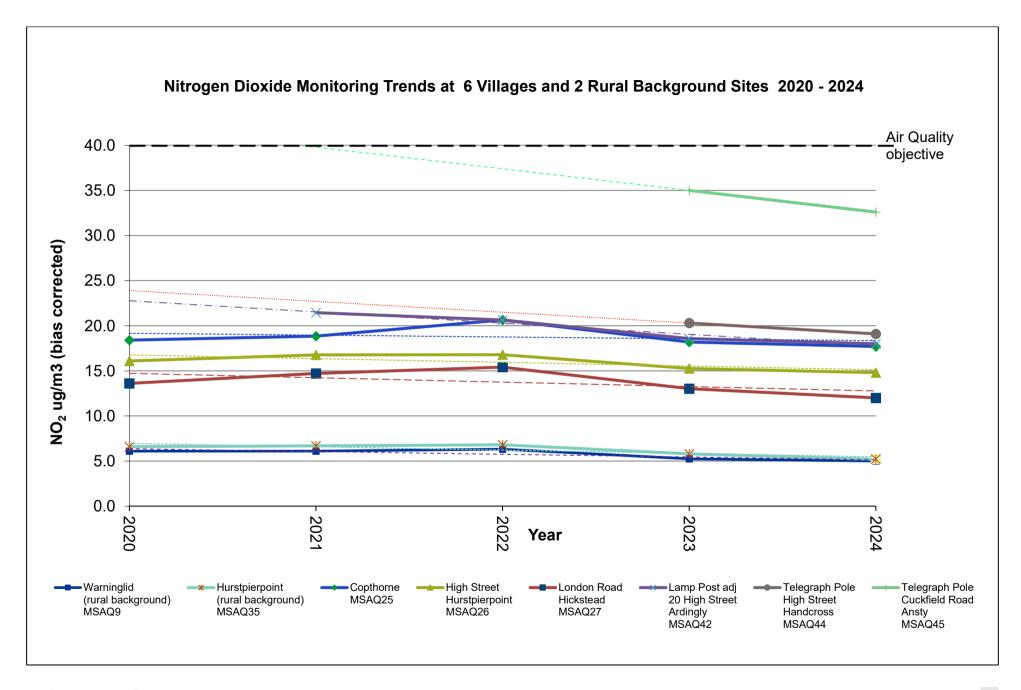
Year	Warninglid (rural background) MSAQ9	Hurstpierpoint (rural background) MSAQ35	Copthorn e MSAQ25	High Street Hurstpierpoi nt MSAQ26	London Road Hickstead MSAQ27	Lamp Post adj 20 High Street Ardingly MSAQ42	Telegraph Pole High Street Handcross MSAQ44	Telegraph Pole Cuckfield Road Ansty MSAQ45
2020	6.1	6.6	18.4	16.1	13.6			
2021	6.1	6.7	18.8	16.8	14.7	21.4		
2022	6.3	6.8	20.6	16.8	15.4	20.6		
2023	5.2	5.8	18.2	15.3	13.0	18.6	20.3	35.0
2024	5.0	5.2	17.7	14.8	12.0	18.0	19.1	32.6

MSAQ9, 25, 26, 27 and 35 all have shown a reduction in recorded levels from 2020 to 2024.

MSAQ42 has shown a level reduction from 2021 to 2024.

MSAQ44 and 45 has shown a level reduction from 2023 to 2024.

All are currently below the Air Quality Objective of  $40\mu g/m^3$ .



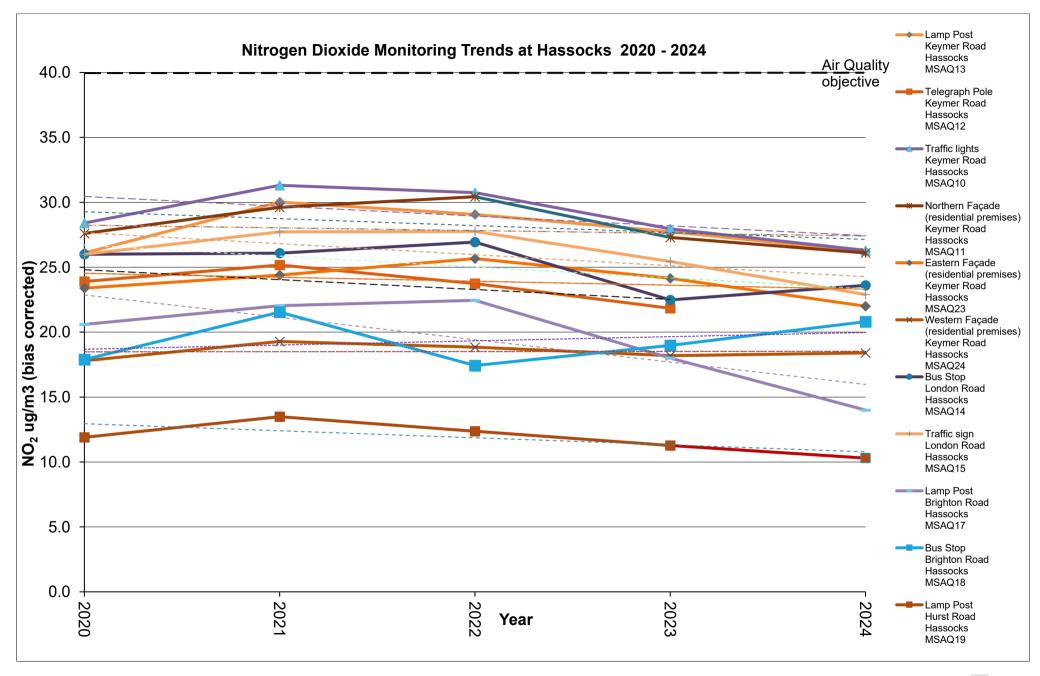
#### Diffusion tube - Nitrogen dioxide monitoring trends at Hassocks 2020 - 2024

Year	Telegraph Pole Keymer Road Hassocks MSAQ12	Lamp Post Keymer Road Hassocks MSAQ13	Traffic lights Keymer Road Hassocks MSAQ10	Northern Façade (residential premises) Keymer Road Hassocks MSAQ11	Eastern Façade (residential premises) Keymer Road Hassocks MSAQ23	Western Façade (residential premises) Keymer Road Hassocks MSAQ24
2020	23.9	26.1	28.4	27.6	23.4	17.8
2021	25.2	30.0	31.3	29.6	24.4	19.3
2022	23.7	29.1	30.7	30.4	25.7	18.8
2023	21.8	27.7	28.0	27.3	24.2	18.2
2024	Site retired	26.2	26.3	26.1	22.0	18.4

Year	Bus Stop London Road Hassocks MSAQ14	Traffic sign London Road Hassocks MSAQ15	Lamp Post Brighton Road Hassocks MSAQ17	Bus Stop Brighton Road Hassocks MSAQ18	Lamp Post Hurst Road Hassocks MSAQ19
2020	26.0	26.0	20.6	17.9	11.9
2021	26.1	27.7	22.0	21.5	13.5
2022	26.9	27.8	22.5	17.4	12.4
2023	22.5	25.4	18.0	19.0	11.3
2024	23.6	22.9	14.0	20.8	10.3

All sites have shown an overall reduction in recorded levels from 2021 to 2024 except MSAQ18 which showed a slight increase in 2024.

All are currently below the Air Quality Objective of  $40\mu g/m^3$ 



#### Diffusion tube - Nitrogen dioxide monitoring trends in AQMA 2020 - 2024

Year	Traffic lights Keymer Road Hassocks MSAQ10	Northern Façade (residential premises) Keymer Road Hassocks MSAQ11	Eastern Façade (residential premises) Keymer Road Hassocks MSAQ23	Western Façade (residential premises) Keymer Road Hassocks MSAQ24
2020	28.4	27.6	23.4	17.8
2021	31.3	29.6	24.4	19.3
2022	30.7	30.4	25.7	18.8
2023	28.0	27.3	24.2	18.2
2024	26.3	26.1	22.0	18.4

There has been an overall reduction in the levels recorded at the sites within the AQMA area since it was declared in 2012.

Currently none of the sites have recorded NO2 levels above the Air Quality Objective.

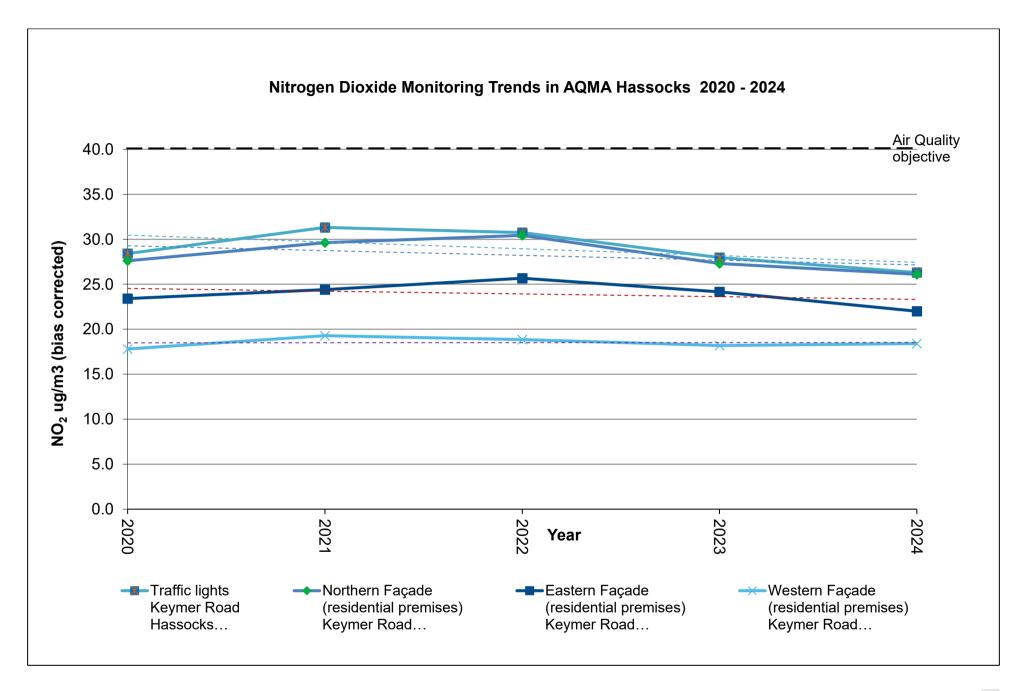


Table A.5 – 1-Hour Mean NO<sub>2</sub> Monitoring Results, Number of 1-Hour Means > 200μg/m<sup>3</sup>

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
MSAQ43	539090	138412	Roadside	96.2	95.9	N/A	N/A	0 (93.1)	0	0

#### Notes:

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m³ have been recorded.

Exceedances of the NO<sub>2</sub> 1-hour mean objective (200µg/m³ not to be exceeded more than 18 times/year) are shown in **bold**.

If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

#### Figure A.2 – Trends in Number of NO<sub>2</sub> 1-Hour Means > 200μg/m<sup>3</sup>

Since monitoring started in September 2022 there have been no instances where the 1-Hour Mean NO<sub>2</sub> monitored results have been > 200µg/m<sup>3</sup>.

#### Table A.6 – Annual Mean PM₁₀ Monitoring Results (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
MSAQ43	539090	138412	Roadside	98.8	98.5	N/A	N/A	18.8	17.0	16.3

# ☑ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.

#### Notes:

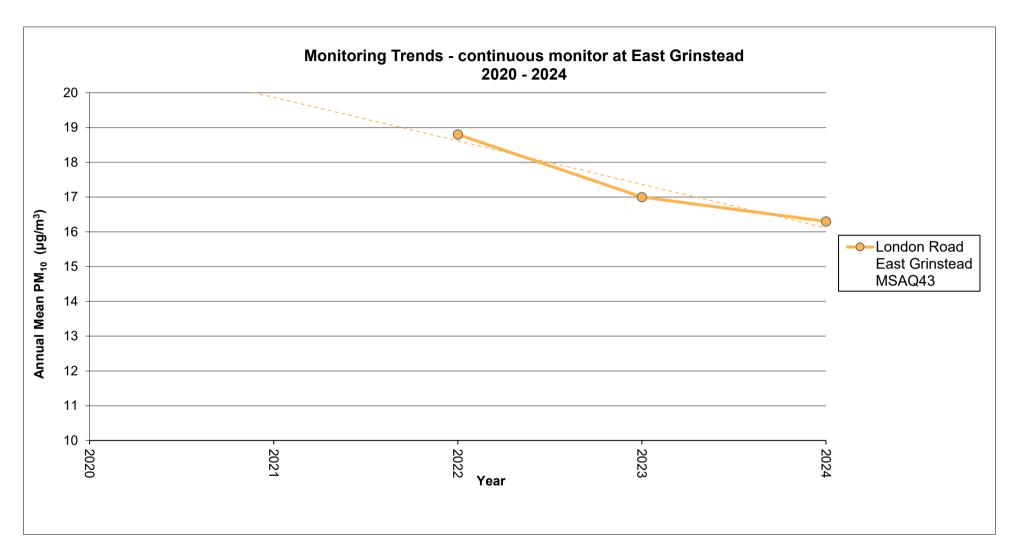
The annual mean concentrations are presented as µg/m<sup>3</sup>.

Exceedances of the PM<sub>10</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.3 – Trends in Annual Mean PM<sub>10</sub> Concentrations



Since monitoring started in September 2022 the measured annual PM<sub>10</sub> levels have reduced

### Table A.7 – 24-Hour Mean PM<sub>10</sub> Monitoring Results, Number of PM<sub>10</sub> 24-Hour Means > 50μg/m<sup>3</sup>

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
MSAQ43	539090	138412	Roadside	98.8	98.5	N/A	N/A	0 (26.5)	1	0

#### Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m³ have been recorded. Exceedances of the PM<sub>10</sub> 24-hour mean objective (50µg/m³ not to be exceeded more than 35 times/year) are shown in **bold**. If the period of valid data is less than 85%, the 90.4th percentile of 24-hour means is provided in brackets.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

#### Figure A.4 – Trends in Number of 24-Hour Mean PM<sub>10</sub> Results > 50μg/m<sup>3</sup>

Since monitoring started in September 2022 there has been only one instance where the 24-Hour Mean PM<sub>10</sub> monitored results have been

 $> 50 \mu g/m^3$ .

# **Appendix B: Full Monthly Diffusion Tube Results for 2024**

Table B.1 - NO<sub>2</sub> 2024 Diffusion Tube Results (µg/m³)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted 0.84	Annual Mean: Distance Corrected to Nearest Exposure	Comment
MSAQ 1	533342	123587	19.4	17.5	15.1	13.7	12.9	11.1	12.2	11.6	12.9	16.5	18.3	14.2	14.6	12.3	-	
MSAQ 3	538690	138759	29.2	23.0	23.1	21.2	21.9	20.6	19.6	21.2	22.0	20.3	26.0	17.5	22.1	18.6	-	
MSAQ 5	541245	136996	31.2	22.9	19.9	20.3	19.5	20.7	18.2	18.1	19.1	24.6	24.5	20.7	21.6	18.2	-	
MSAQ 9	525664	125035	8.4	6.1	5.9	5.5	4.9	3.6	4.7	4.8	5.3	7.8	8.9	6.2	6.0	5.0	-	
MSAQ 10	529911	115489	34.7	26.5	25.7	33.2	32.1	31.2	30.5	27.9	36.2	34.3	34.4	29.2	31.3	26.3	-	
MSAQ 11a	529930	115481	33.3	32.1	31.6	30.5	32.6	27.8	32.0	28.2	34.8	31.6	32.7	26.8	-	-	-	Triplicate Site with MSAQ11a, MSAQ11b and MSAQ11c - Annual data provided for MSAQ11c only
MSAQ 11b	529930	115481	32.2	31.2	31.9	32.1	33.6	31.4	32.6	29.0	32.3	30.6	33.0	25.3	-	-	-	Triplicate Site with MSAQ11a, MSAQ11b and MSAQ11c - Annual data provided for MSAQ11c only
MSAQ 11c	529930	115481	31.2	31.4	32.6	32.1	28.9	32.8	31.8	28.9	33.7	28.8	31.7	27.3	31.1	26.1	-	Triplicate Site with MSAQ11a, MSAQ11b and MSAQ11c - Annual data provided for MSAQ11c only
MSAQ 13	529995	115476	37.0	33.1	29.2	30.9	31.1	31.4	25.1	23.0	33.8	31.8	37.2	30.5	31.2	26.2	-	
MSAQ 14	529911	115598	26.6	28.8	32.0	26.8	26.6	27.2	29.7	27.6	25.3	29.7	29.3	Lost	28.1	23.6	-	
MSAQ 15	529930	115600	32.5	31.3	32.1	29.9	Lost	28.5	26.2	24.7	22.8	18.8	28.9	24.8	27.3	22.9	-	
MSAQ 17	529894	115340	20.7	16.6	Spurio us result	15.9	16.0	14.4	15.5	13.0	15.5	18.1	20.8	16.2	16.6	14.0	-	
MSAQ 18	529907	115428	28.4	22.1	19.8	Lost	26.8	25.8	24.6	24.4	25.3	19.3	30.9	24.9	24.8	20.8	-	
MSAQ 19	529779	115557	18.4	13.5	12.6	11.6	10.5	9.0	10.1	9.0	10.9	14.6	16.1	11.2	12.3	10.3	-	
MSAQ 22	532160	120069	Lost	24.9	22.3	24.4	19.5	19.9	Lost	Lost	Lost	5.0	32.6	26.2	21.8	17.6	-	

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DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted 0.84	Annual Mean: Distance Corrected to Nearest Exposure	Comment
MSAQ 23	529935	115478	30.5	26.5	24.7	26.1	26.4	26.7	25.0	23.5	28.2	24.4	28.0	24.0	26.2	22.0	-	
MSAQ 24	529918	115476	27.5	22.4	17.7	20.4	18.4	Lost	14.7	19.2	25.3	22.0	30.4	23.1	21.9	18.4	<del>-</del>	
MSAQ 25	531176	138829	25.6	24.1	23.0	19.0	18.7	20.3	19.8	20.7	19.4	21.2	21.6	20.1	21.1	17.7	-	
MSAQ 26	528289	116395	24.0	18.2	16.5	17.4	16.4	15.5	15.1	14.5	17.0	18.6	20.5	18.3	17.7	14.8	-	
MSAQ 27	526870	120238	20.4	14.4	12.6	13.4	13.3	11.6	13.2	9.5	14.1	16.5	17.6	Lost	14.2	12.0	-	
MSAQ 28	533342	122625	28.9	25.3	26.8	22.5	24.4	23.2	24.3	22.2	20.8	28.2	30.2	23.5	25.0	21.0	-	
MSAQ 29	539040	138452	37.2	35.4	34.2	33.8	33.5	33.4	28.8	30.8	Lost	34.6	35.1	28.2	33.2	27.9	-	
MSAQ 32	530791	120295	19.5	13.3	11.0	10.8	8.5	8.5	8.6	11.0	11.0	11.5	17.1	14.0	12.1	10.1	-	
MSAQ 34	531144	118862	24.4	19.8	18.7	17.0	Spurio us result	14.7	16.5	15.4	18.1	22.5	22.8	18.3	18.9	15.9	-	
MSAQ 35	528904	114415	10.4	7.5	7.2	6.4	3.0	4.3	5.6	4.9	4.5	7.3	7.7	6.0	6.2	5.2	-	
MSAQ 36	537612	139405	41.2	35.5	37.8	35.4	33.2	34.5	33.6	33.2	38.1	37.1	38.8	32.0	35.9	30.1	-	
MSAQ 37	538932	138472	38.0	36.5	35.5	31.3	33.9	32.6	32.1	31.3	34.0	Lost	39.3	24.9	33.6	28.2	-	
MSAQ 38	539004	138481	24.7	22.3	21.0	19.9	18.8	18.1	19.9	19.1	18.8	26.7	24.3	19.5	21.1	17.7	-	
MSAQ 40	532892	118062	17.9	13.0	10.6	10.7	10.7	8.8	11.1	9.5	10.5	15.1	15.3	13.6	12.2	10.3	-	
MSAQ 41	531745	118753	23.4	19.4	16.5	18.0	17.5	16.3	16.1	13.9	18.3	20.0	24.6	18.8	18.6	15.6	-	
MSAQ 42	534785	129560	28.6	23.9	20.3	20.7	19.0	17.4	16.1	16.6	20.7	27.5	29.3	17.0	21.4	18.0	<del>-</del>	
MSAQ 43a	539090	138412	29.5	26.4	25.2	27.0	26.6	23.9	24.6	20.7	27.3	36.1	31.8	21.3	-	-	-	Triplicate Site with MSAQ43a, MSAQ43b and MSAQ43c - Annual data provided for MSAQ43c only
MSAQ 43b	539090	138412	31.7	25.8	24.7	26.1	26.1	24.1	24.3	20.4	28.4	35.5	31.3	21.5	-	-	-	Triplicate Site with MSAQ43a, MSAQ43b and MSAQ43c - Annual data provided for MSAQ43c only
MSAQ 43c	539090	138412	29.6	25.2	23.4	26.5	25.7	22.1	25.1	20.4	29.8	37.5	29.4	20.9	26.5	22.3	-	Triplicate Site with MSAQ43a, MSAQ43b and MSAQ43c - Annual data provided for MSAQ43c only

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DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted 0.84	Annual Mean: Distance Corrected to Nearest Exposure	Comment
MSAQ 44	526265	129898	28.9	24.8	21.6	21.2	20.5	21.4	Lost	21.2	21.1	23.6	24.2	21.4	22.7	19.1	-	
MSAQ 45	529162	123346	42.6	42.4	29.3	38.5	42.3	39.0	39.8	36.4	42.9	38.2	43.0	31.9	38.9	32.6	-	
MSAQ 46	530806	119776	31.6	18.5	20.8	19.0	18.6	17.8	17.9	17.7	19.9	24.2	30.3	21.1	21.4	18.0	-	
MSAQ 47	529157	123317	36.9	30.9	29.2	27.2	27.8	27.1	27.8	25.5	27.0	27.7	32.3	27.3	28.9	24.3	-	
MSAQ 48	529096	123282	20.3	18.4	14.1	16.7	14.6	13.4	12.1	11.6	16.7	14.0	20.0	17.3	15.8	13.2	-	

- ☑ All erroneous data has been removed from the NO₂ diffusion tube dataset presented in Table B.1.
- ☑ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.
- ☑ National bias adjustment factor used.
- **☑** Where applicable, data has been distance corrected for relevant exposure in the final column.
- ☑ Mid Sussex confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.

#### Notes:

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

NO<sub>2</sub> annual means exceeding 60µg/m<sup>3</sup>, indicating a potential exceedance of the NO<sub>2</sub> 1-hour mean objective are shown in **bold and underlined**.

See Appendix C for details on bias adjustment and annualisation.

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# Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

#### New or Changed Sources Identified Within Mid Sussex During 2024

Mid Sussex District Council has not identified any significant new sources relating to air quality within the reporting year of 2024.

# Additional Air Quality Works Undertaken by Mid Sussex District Council During 2024

Mid Sussex District Council revoked its AQMA at Stonepound Crossroads on 10 December 2024. Mid Sussex District Council has not completed any additional works within the reporting year of 2024.

#### QA/QC of Diffusion Tube Monitoring

The tubes are supplied by Gradko laboratories and are prepared using 20% TEA in water.

Results for the nitrogen dioxide diffusion colocation studies available at <u>Precision and Accuracy | LAQM</u> show Gradko laboratory had good precision for 2024.

The 2024 Diffusion Tube Monitoring Calendar was adhered to except for a change from 1 to 9 May, 2 to 7 October and 6 to 11 November due to officer work commitments.

#### **Diffusion Tube Annualisation**

Using the Diffusion\_Tube\_Data\_Processing\_Tool\_v5.4 for site MSAQ22 which required annualization the simple annual mean has been calculated.

#### Table C.1 – Annualisation Summary (concentrations presented in μg/m³)

Diffusion Tube ID	Annualisation Factor Lullington Heath	Annualisation Factor Preston Park	Average Annualisation Factor	Raw Data Simple Annual Mean (µg/m³)	Annualised Data Simple Annual Mean (µg/m3)
MSAQ22	0.9404	0.9831	0.9617	21.8	21.0

#### **Diffusion Tube Bias Adjustment Factors**

The diffusion tube data presented within the 2025 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance with regard to the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO<sub>x</sub>/NO<sub>2</sub> continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Mid Sussex have applied a national bias adjustment factor of 0.84 (V04\_25) to the 2024 monitoring data. A summary of bias adjustment factors used by Mid Sussex over the past five years is presented in Table C.2.

Defra guidance TG22 explains how to choose between local and national bias adjustment factors, including consideration of tube exposure time (monthly), length of the monitoring study (annual), QA/QC factors, and siting of the analyser and diffusion tubes.

Our conclusion is that the factors support us using the national bias adjustment:

Our diffusion tubes are exposed over a wide range of settings, including open sites, canyon type sites, urban, rural, roadside, facade etc. TG22 advises that *co-location results* from a low concentration site (typically a background site) should not be used to derive a bias adjustment factor for survey results from high concentration sites (typically roadside sites) and vice versa.

Whilst there are some arguments for us to use the local factor (0.71) from our co-located study at East Grinstead, we feel that, given the recent revocation of our AQMA, we should continue with a cautious approach by using the least favourable bias adjustment factor. This would also ensure consistency, given our previous use of a national bias factor (see Table C.2). If the data show no exceedances even with the least favourable factor, this indicates a robust and defensible approach to monitoring and determining long-term trends.

**Table C.2 – Bias Adjustment Factor** 

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	V04_25	0.84
2023	National	V03_24	0.81
2022	National	V03_23	0.83
2021	National	v03_22	0.84
2020	National	v03_21	0.91

Table C.3 - Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1
Periods used to calculate bias	12
Bias Factor A	0.71 (0.69 - 0.74)
Bias Factor B	40% (35% - 45%)
Diffusion Tube Mean (μg/m³)	40
Mean CV (Precision)	26.5
Automatic Mean (μg/m³)	2.8%
Data Capture	100%
Adjusted Tube Mean (µg/m³)	35 (33 – 37)

#### Notes:

A national bias adjustment factor has been used to bias adjust the 2024 diffusion tube results. See discussion above.

#### NO<sub>2</sub> Fall-off with Distance from the Road

No diffusion tube NO<sub>2</sub> monitoring locations within Mid Sussex required distance correction during 2024.

#### **QA/QC** of Automatic Monitoring

The Local Site Operator (LSO) visits the site regularly (usually fortnightly) to undertake calibration/cleaning & filter changes.

The site is serviced by a contactor every 6 months

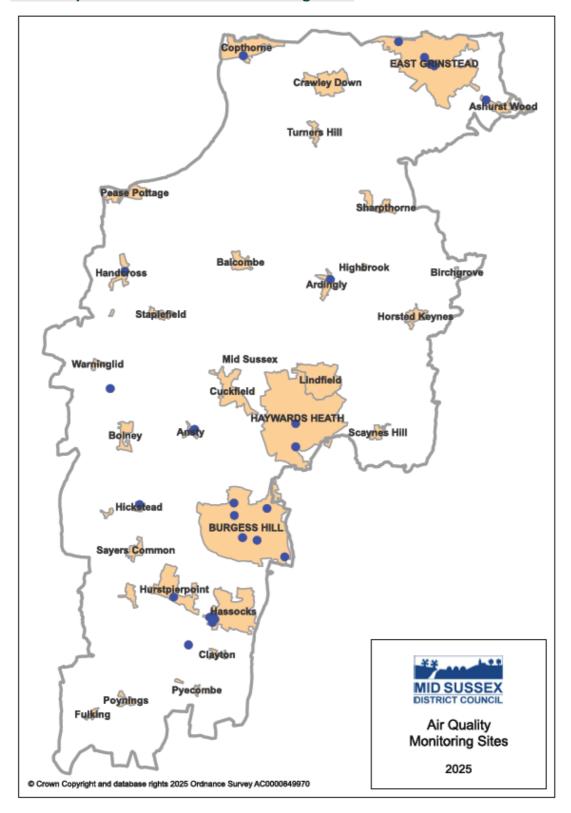
The data presented in this annual status report has been ratified and the data (present and historical) is available on the Sussex Air website at Sussex-air :: Sussex-air :: Sussex-air :: Promoting better Air Quality in Sussex :: sussex-air.net :: Home

#### PM<sub>10</sub> and PM<sub>2.5</sub> Monitoring Adjustment

The data is corrected by Bureau Veritas using a factor of 1.3 as there are no viable TEOM (tapered element oscillating microbalances) FDMS (filter dynamics measurement system) type units in the region to allow a VCM (volatile correction model) correction.

# Appendix D: Map(s) of Monitoring Locations and AQMA

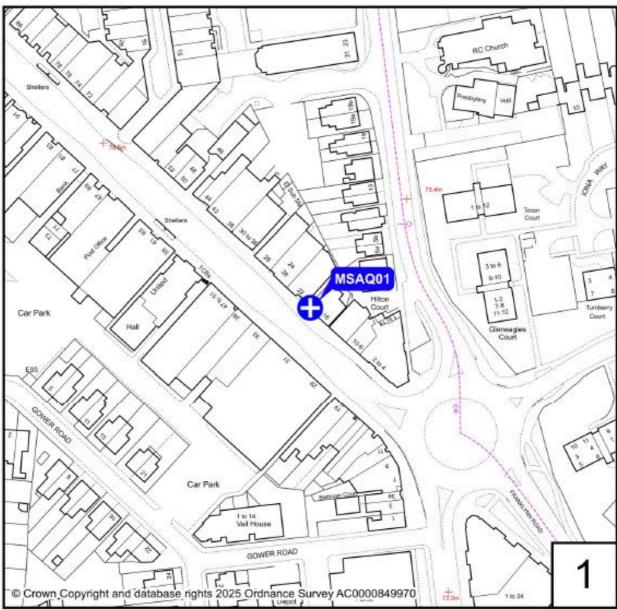
#### D.1 - Map of Non-Automatic Monitoring Sites



#### D.2 - MSAQ1 South Road, Haywards Heath

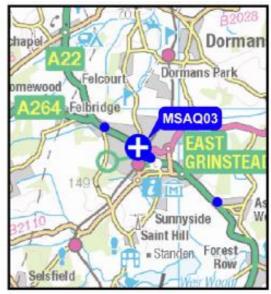


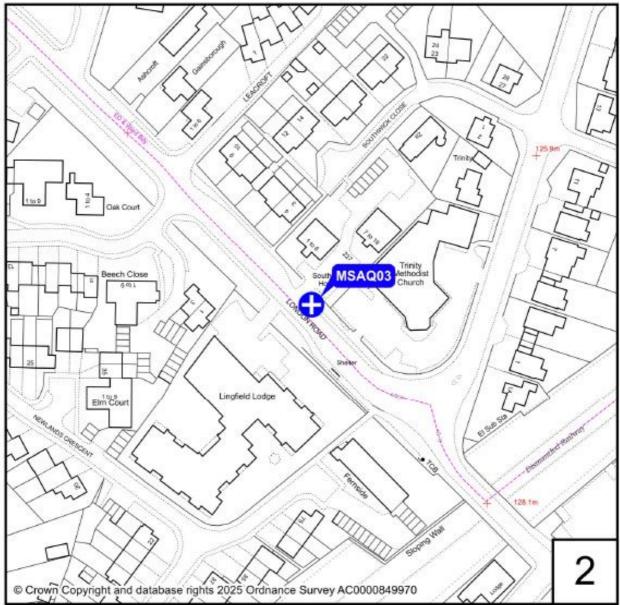




#### D.3 - MSAQ3 London Road, East Grinstead



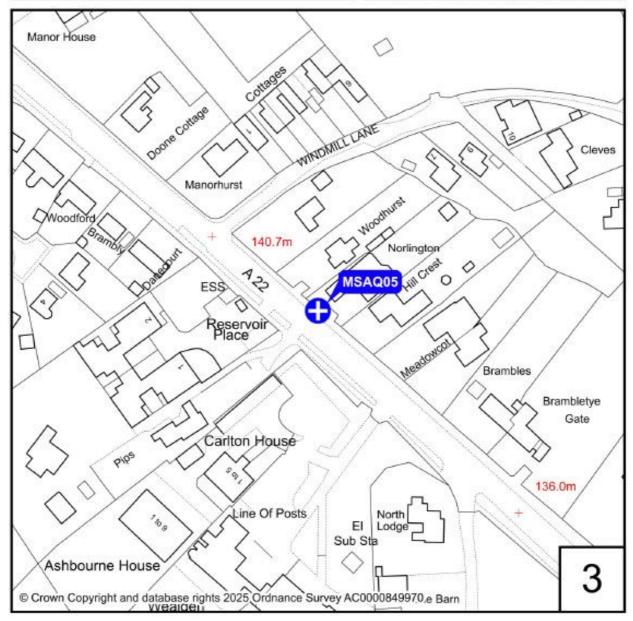




#### D.4 - MSAQ5 Lewes Road, East Grinstead



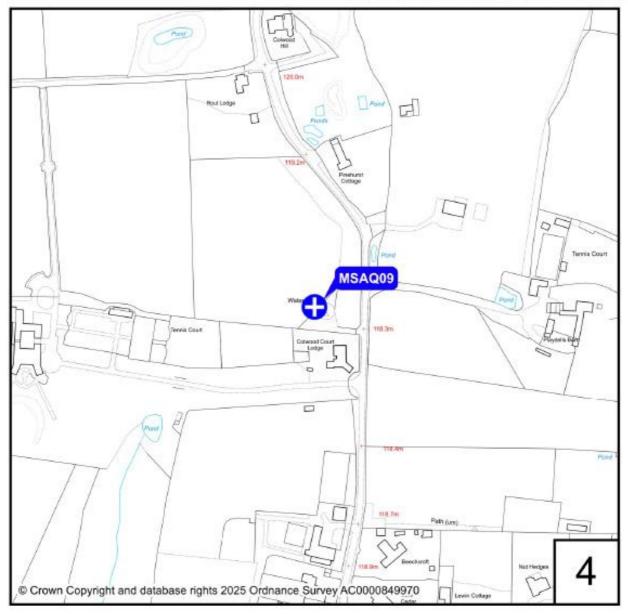




#### D.5 - MSAQ9 Water Tower, Colwood Lane, Warninglid



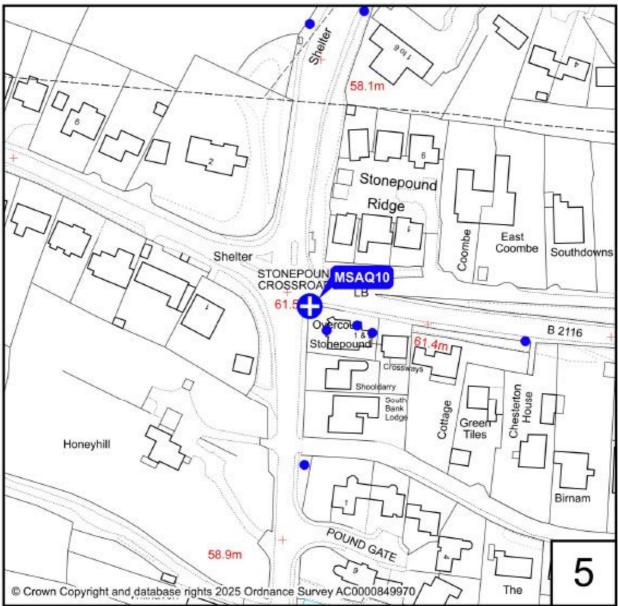




## D.6 - MSAQ10 Stonepound Crossroads, Keymer Road, Hassocks



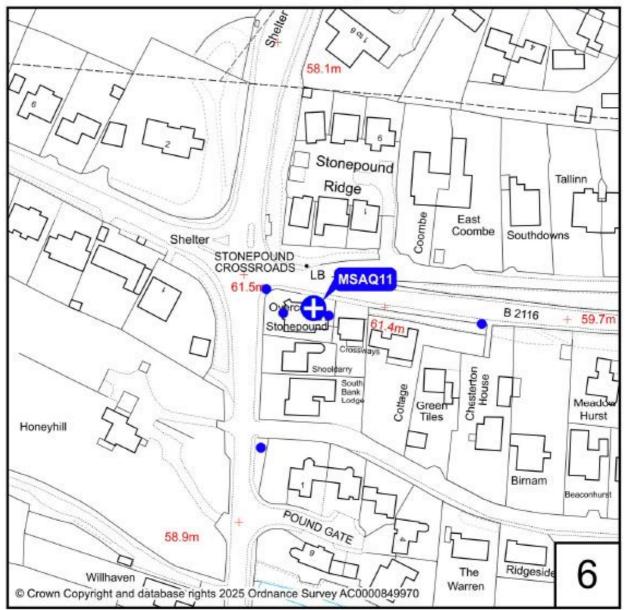




#### D.7 - MSAQ11 Northern façade Overcourt, Keymer Road, Hassocks



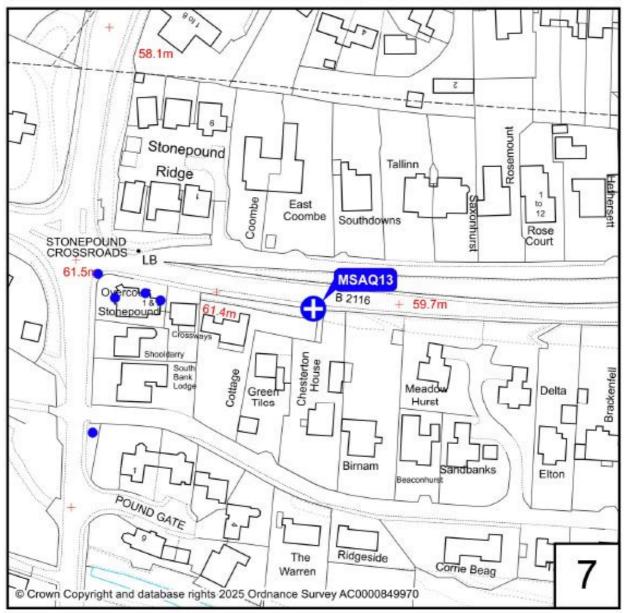




# D.8 - MSAQ13 Lamp Post, Keymer Road, Hassocks



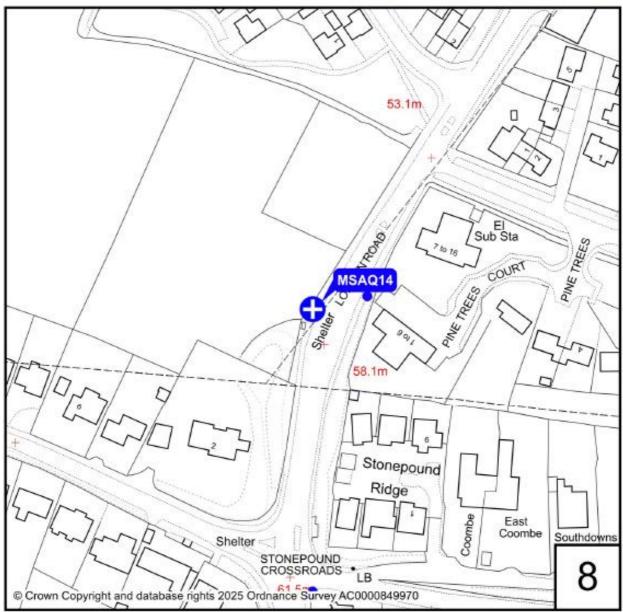




#### D.9 - MSAQ14 Bus Stop, London Road, Hassocks



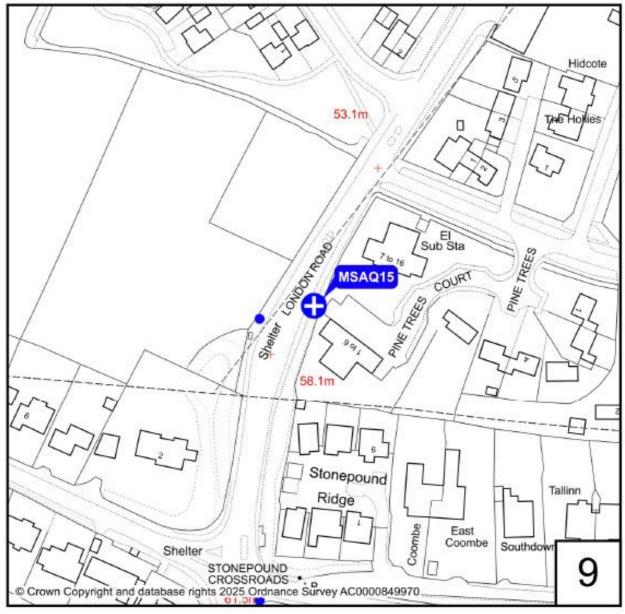




## D.10 - MSAQ15 Traffic light sign, London Road, Hassocks



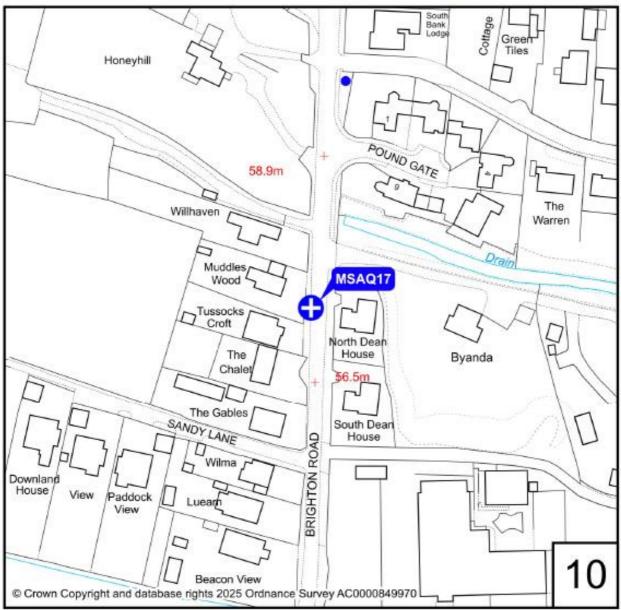




## D.11 - MSAQ17 Lamp Post, Brighton Road, Hassocks



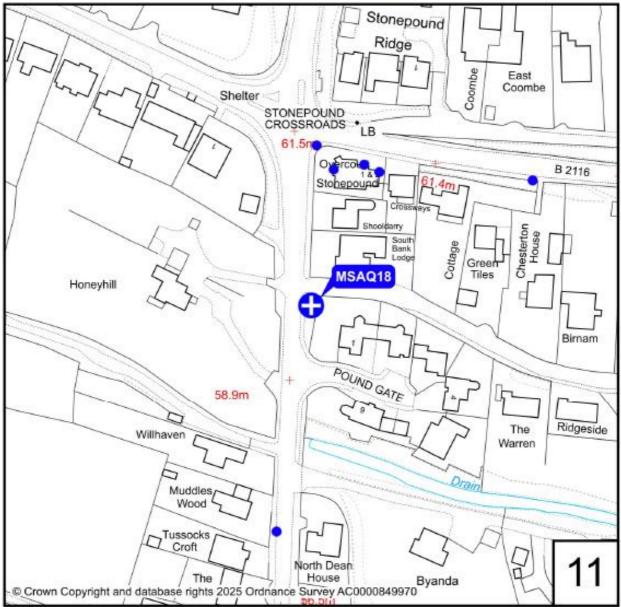




#### D.12 - MSAQ18 Bus Stop, Brighton Road, Hassocks



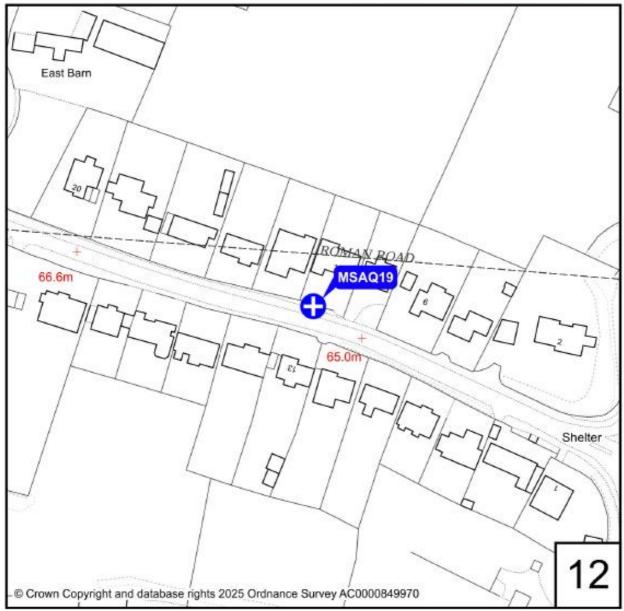




#### D.13 - MSAQ19 Lamp Post, Hurst Road, Hassocks



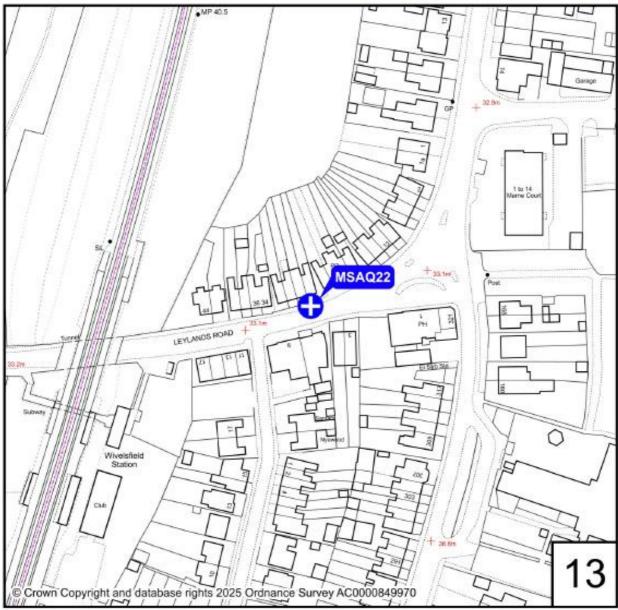




#### D.14 - MSAQ22 Pedestrian crossing, Leylands Road, Burgess Hill



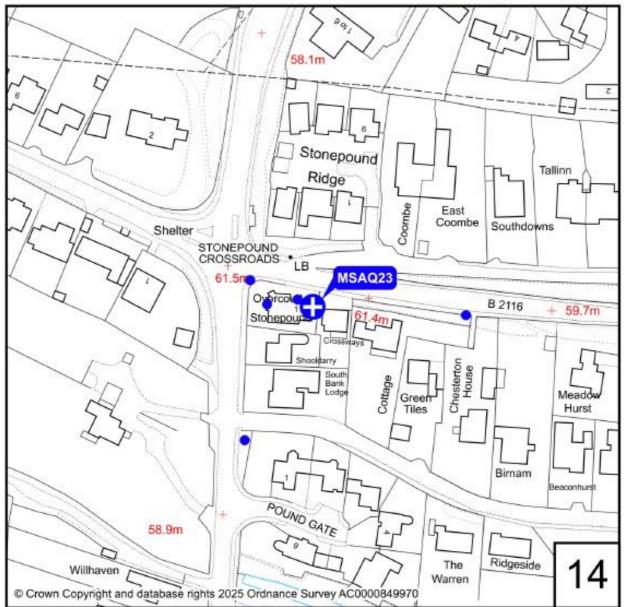




#### D.15 - MSAQ23 Eastern Facade, Overcourt, Keymer Road, Hassocks



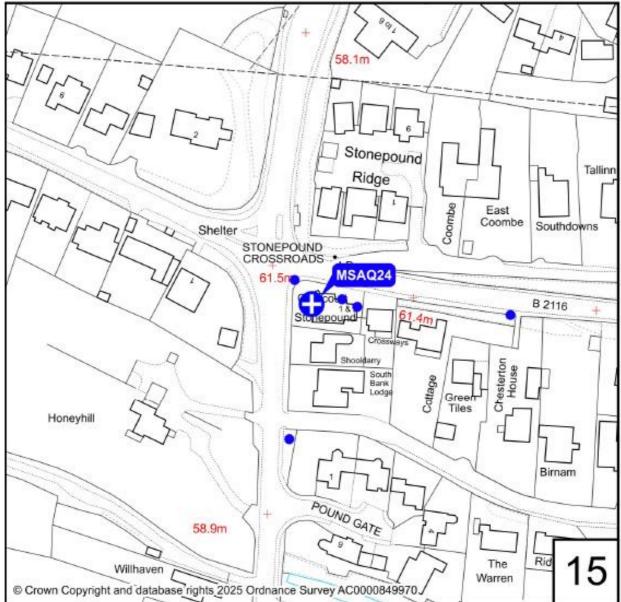




#### D.16 - MSAQ24 Western Facade, Overcourt, Keymer Road, Hassocks



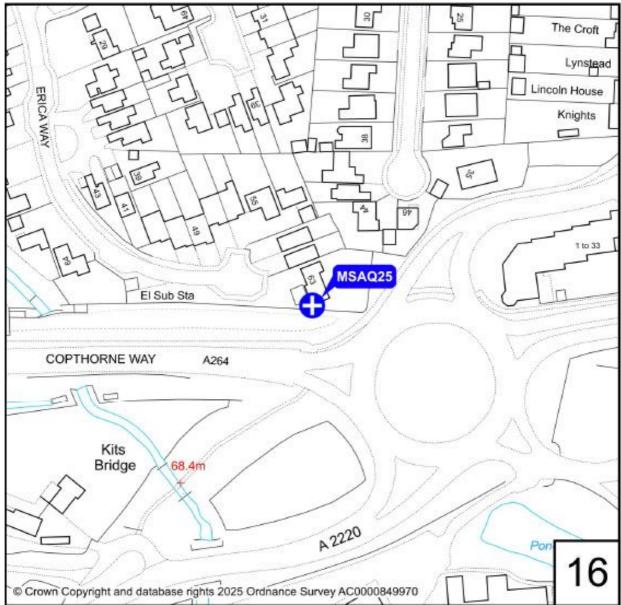




#### D.17 - MSAQ25 Erica Way, Copthorne



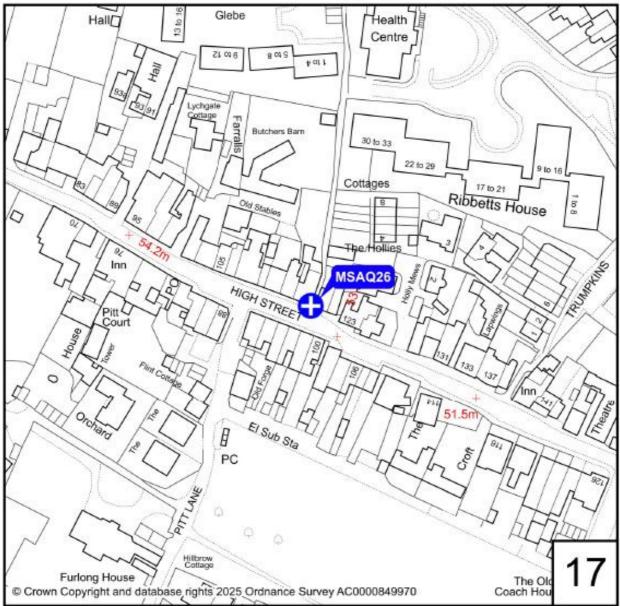




#### D.18 - MSAQ26 Lamp Post, High Street, Hurstpierpoint



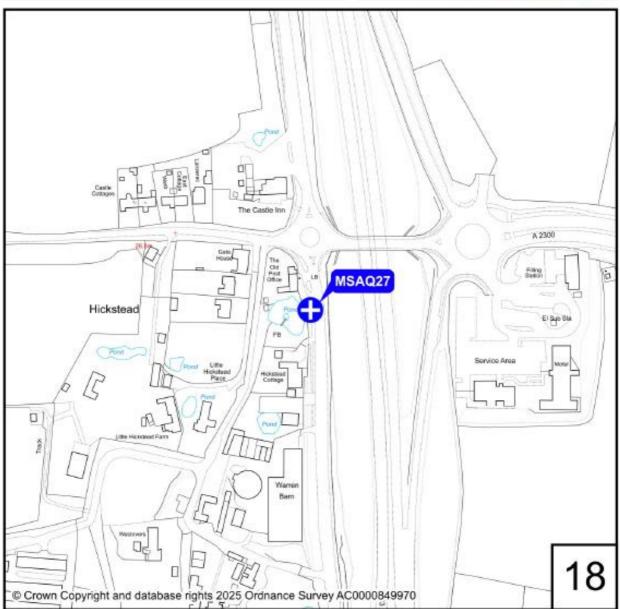




#### D.19 - MSAQ27 Telegraph pole, London Road, Hickstead



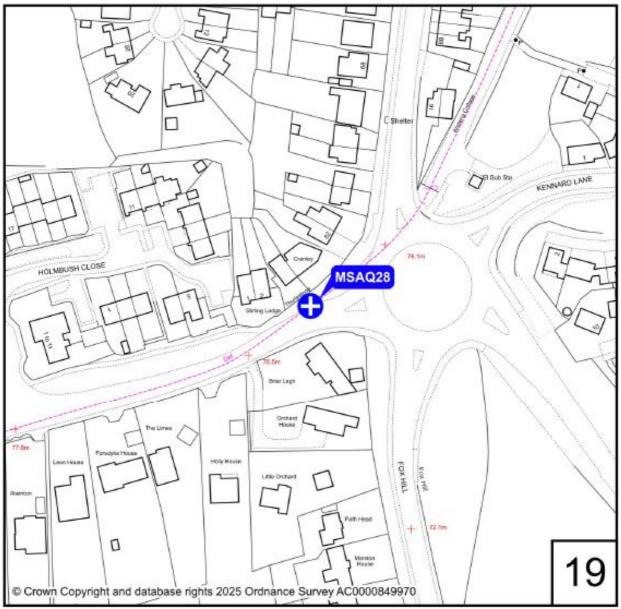




#### D.20 - MSAQ28 Lamp Post, Rocky Lane, Haywards Heath



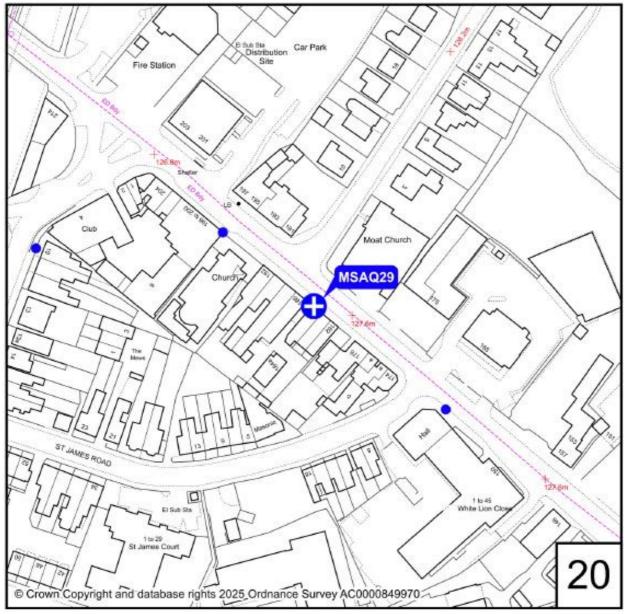




#### D.21 - MSAQ29 Lamp Post adjacent 184 London Road, East Grinstead



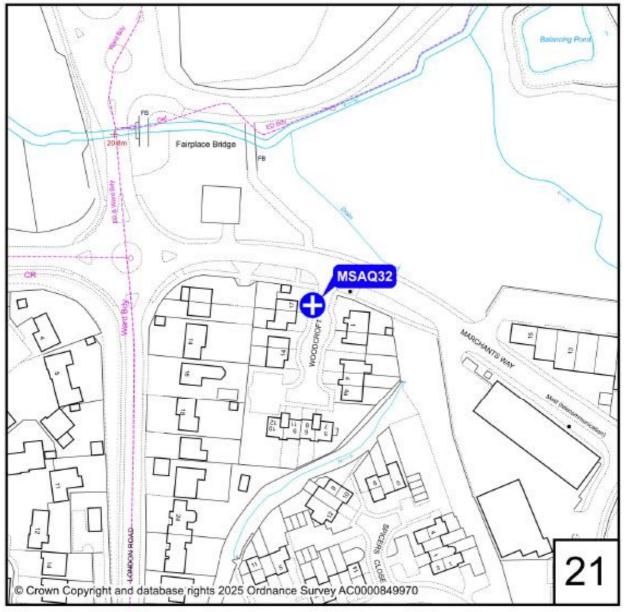




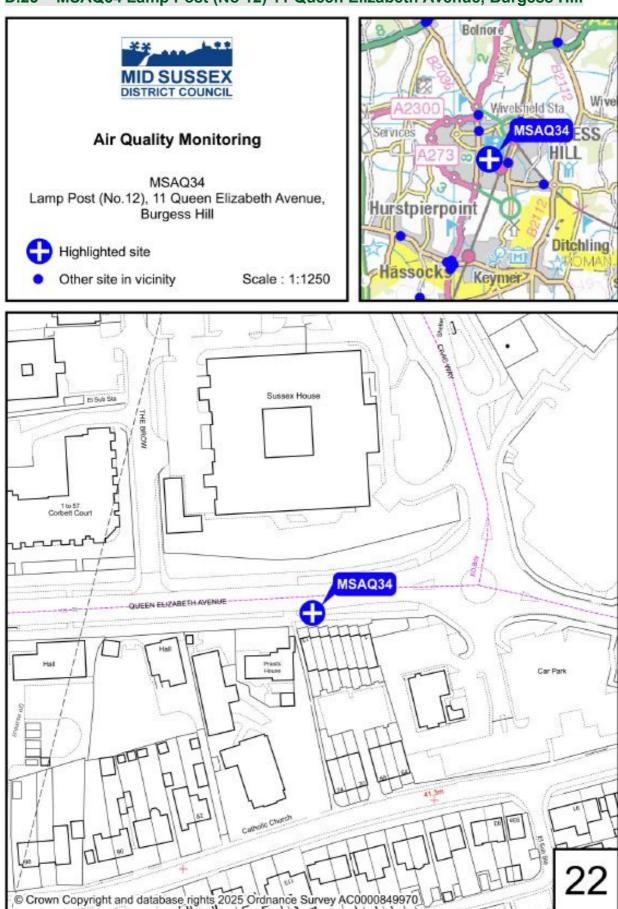
#### D.22 - MSAQ32 Lamp Post adjacent 17 Woodcroft, Burgess Hill







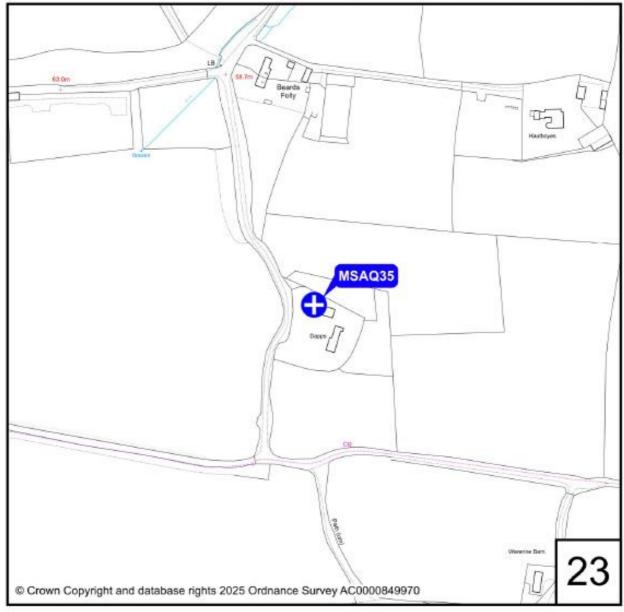
#### D.23 - MSAQ34 Lamp Post (No 12) 11 Queen Elizabeth Avenue, Burgess Hill



#### D.24 - MSAQ35 New Way Lane, Hurstpierpoint



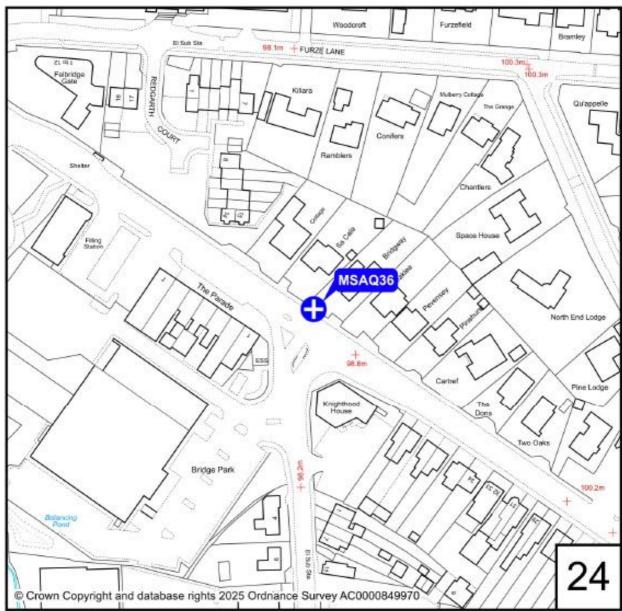




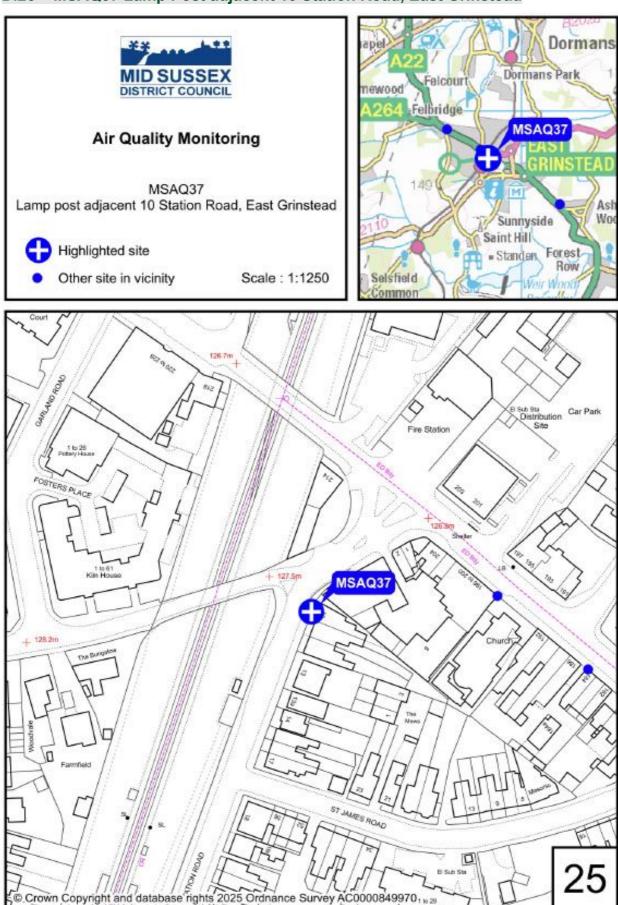
#### D.25 - MSAQ36 Lamp Post outside Bridgeway, London Road, East Grinstead







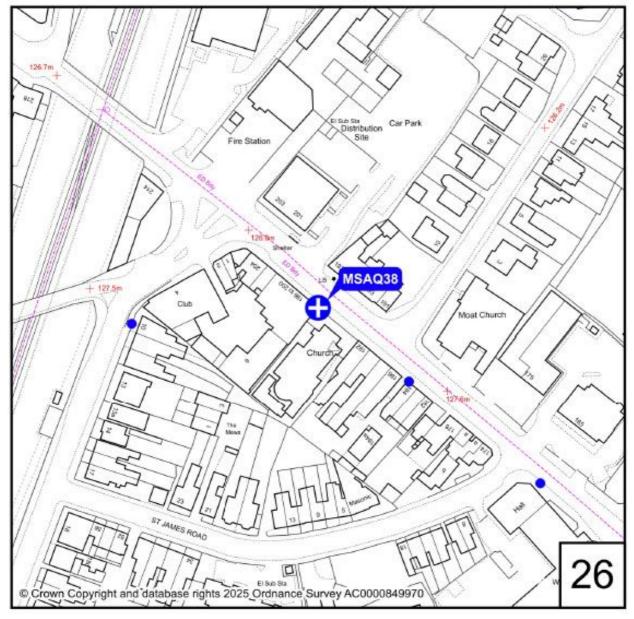
#### D.26 - MSAQ37 Lamp Post adjacent 10 Station Road, East Grinstead



#### D.27 - MSAQ38 Lamp Post adjacent 196-200, London Road, East Grinstead



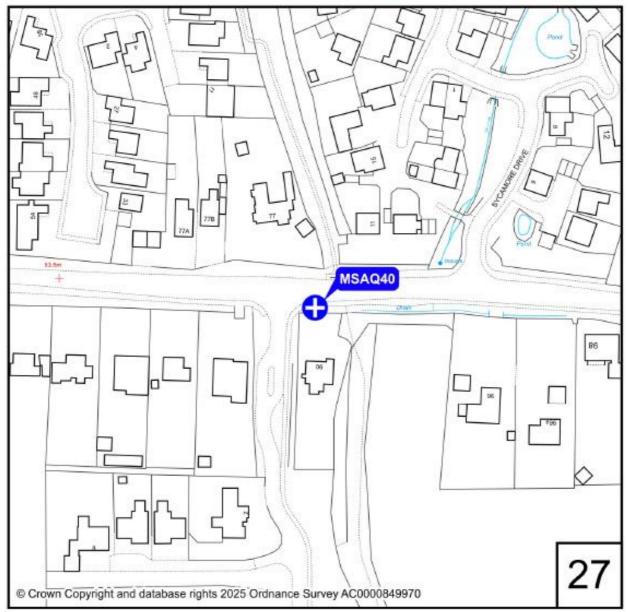


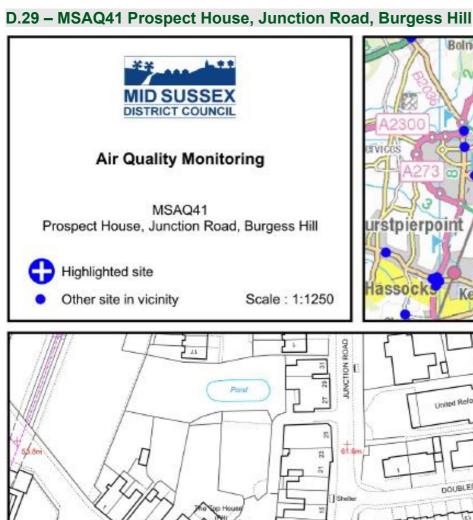


#### D.28 - MSAQ40 Telegraph Pole adjacent Stroudley Drive, Burgess Hill

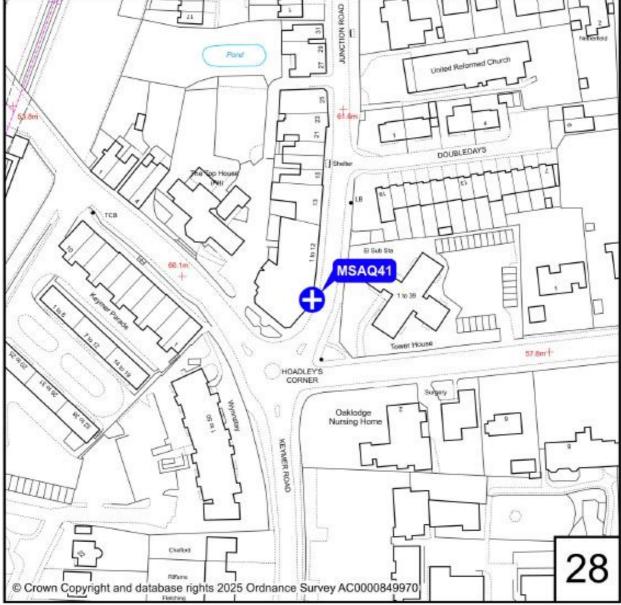








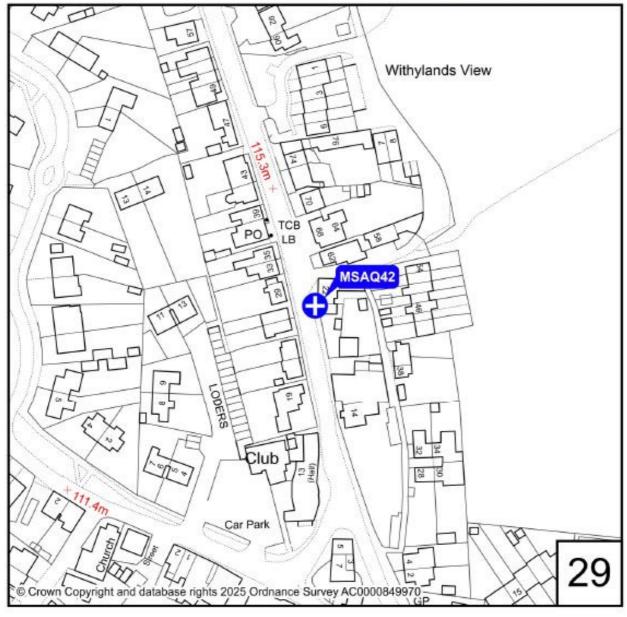




### D.30 - MSAQ42 Lamp Post adjacent 20 High Street, Ardingly

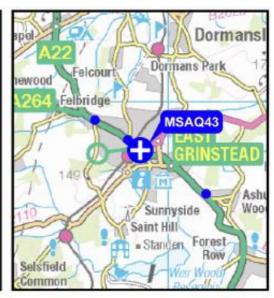


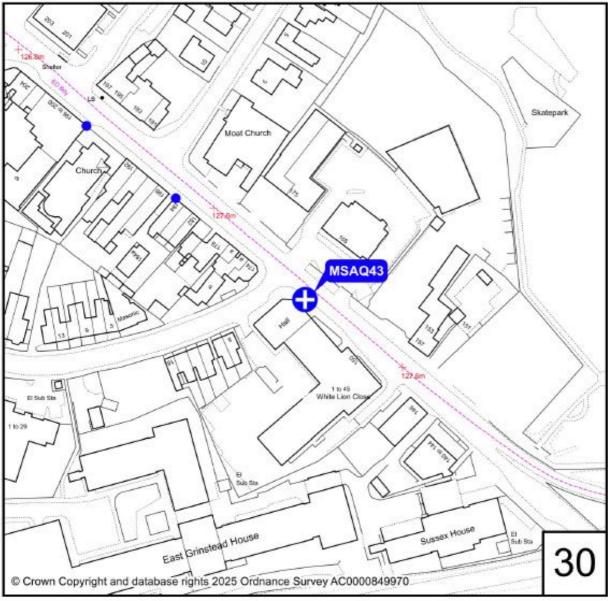




## D.31 – MSAQ43 Continuous monitor and co-located diffusion tubes adjacent Kingdom Hall, London Road, East Grinstead



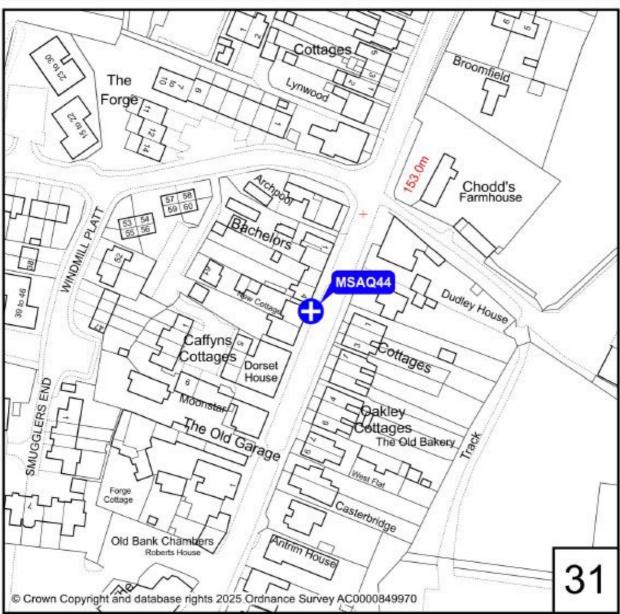




#### D.32 - MSAQ44 Telegraph Pole, High Street, Handcross



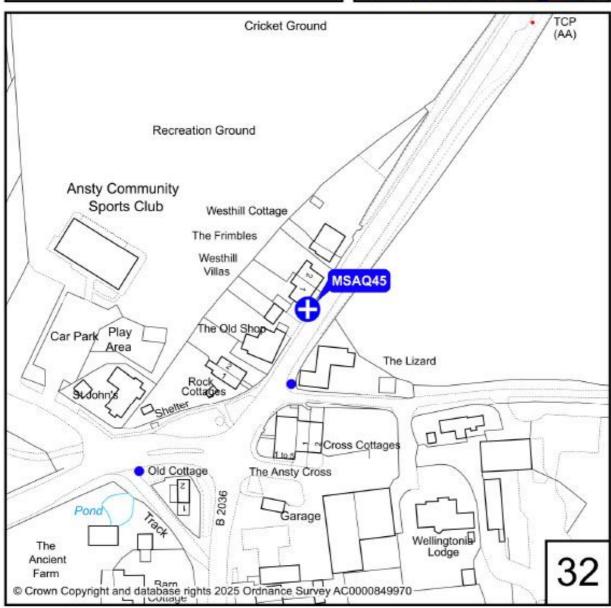




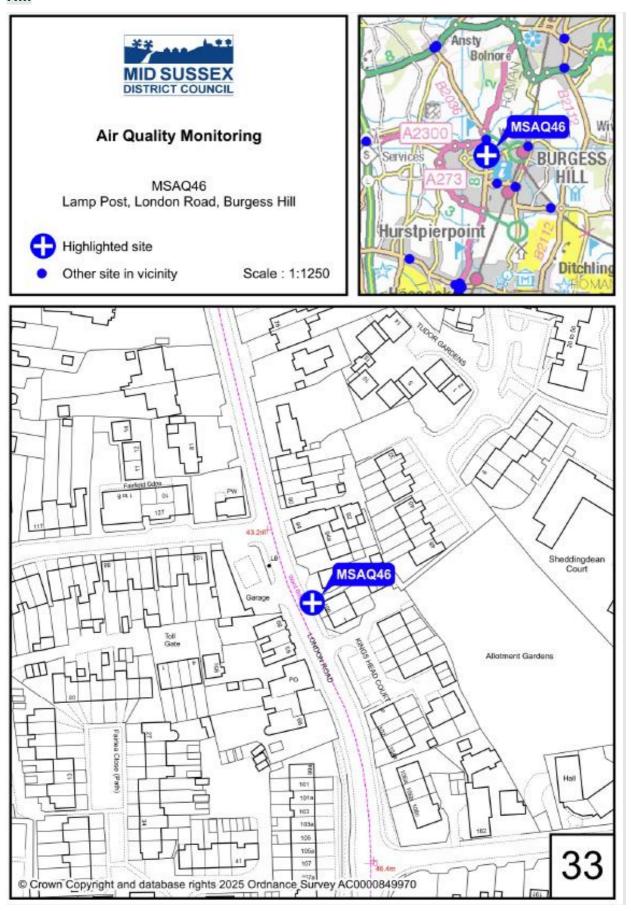
#### D.33 - MSAQ45 Telegraph Pole adjacent 1 West View Villas, Cuckfield Road, Ansty





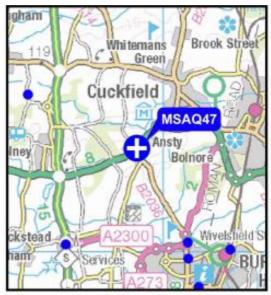


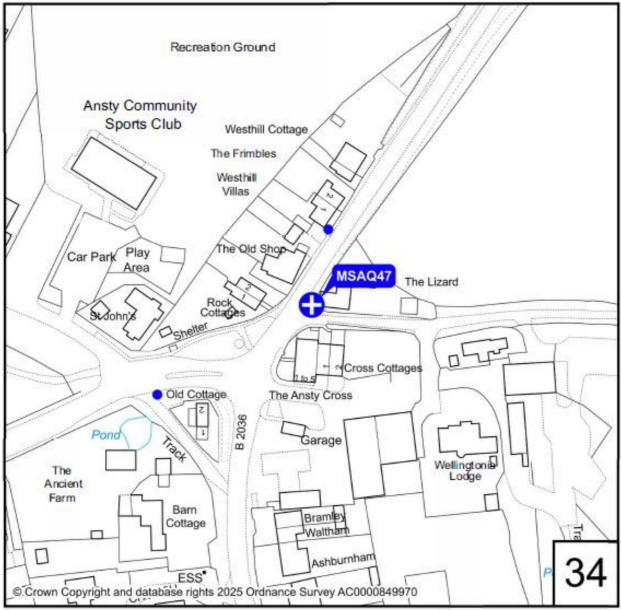
## D.34 – MSAQ46 Lamp Post on footpath to Tudor Gardens, London Road, Burgess Hill



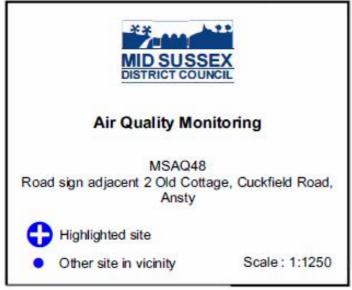
#### D.35 - MSAQ47 Footpath sign adjacent The Lizard, 49 Cuckfield Road, Ansty

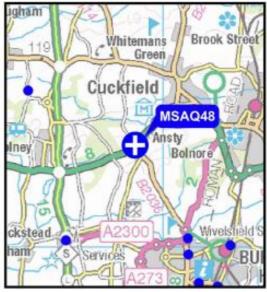


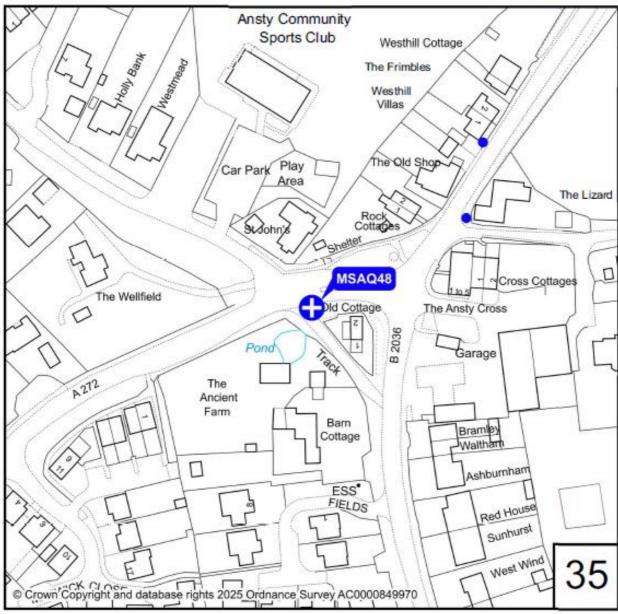




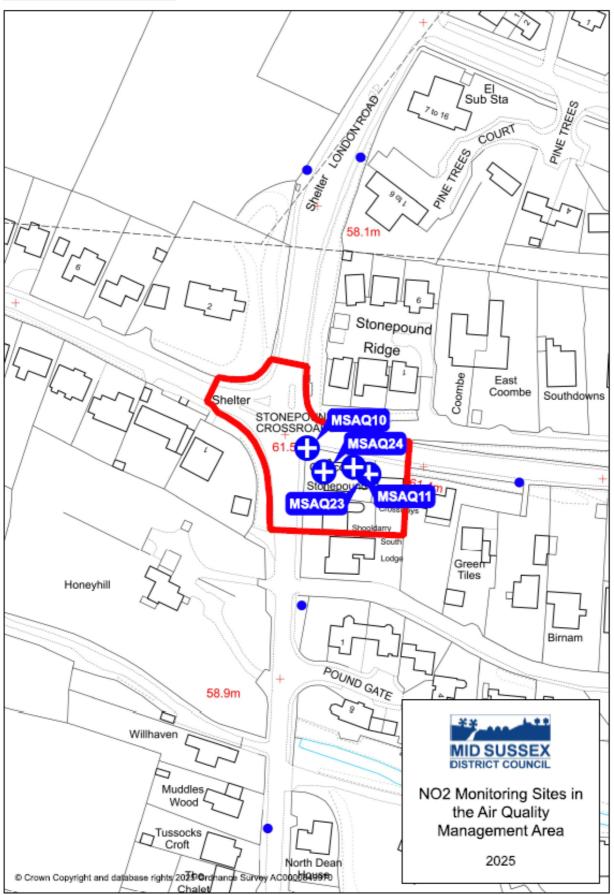
#### D.36 -MSAQ48 Road sign adjacent 2 Old Cottage, Cuckfield Road, Ansty











# Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England<sup>2</sup>

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO <sub>2</sub> )	200μg/m³ not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO <sub>2</sub> )	40μg/m³	Annual mean
Particulate Matter (PM <sub>10</sub> )	50μg/m³, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM <sub>10</sub> )	40μg/m³	Annual mean
Sulphur Dioxide (SO <sub>2</sub> )	350μg/m³, not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO <sub>2</sub> )	125μg/m³, not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO <sub>2</sub> )	266μg/m³, not to be exceeded more than 35 times a year	15-minute mean

-

<sup>&</sup>lt;sup>2</sup> The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

## **Glossary of Terms**

Abbreviation	Description	
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'	
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives	
ASR	Annual Status Report	
Defra	Department for Environment, Food and Rural Affairs	
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways	
LAQM	Local Air Quality Management	
NO <sub>2</sub>	Nitrogen Dioxide	
NOx	Nitrogen Oxides	
PM <sub>10</sub>	Airborne particulate matter with an aerodynamic diameter of 10µm or less	
PM <sub>2.5</sub>	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less	
QA/QC	Quality Assurance and Quality Control	
SO <sub>2</sub>	Sulphur Dioxide	

#### References

- Local Air Quality Management Technical Guidance LAQM.TG22. August 2022.
   Published by Defra in partnership with the Scottish Government, Welsh Assembly
   Government and Department of the Environment Northern Ireland.
- Local Air Quality Management Policy Guidance LAQM.PG22. August 2022.
   Published by Defra in partnership with the Scottish Government, Welsh Assembly
   Government and Department of the Environment Northern Ireland.
- Chemical hazards and poisons report: Issue 28. June 2022. Published by UK
   Health Security Agency
- Air Quality Strategy Framework for Local Authority Delivery. August 2023.
   Published by Defra.